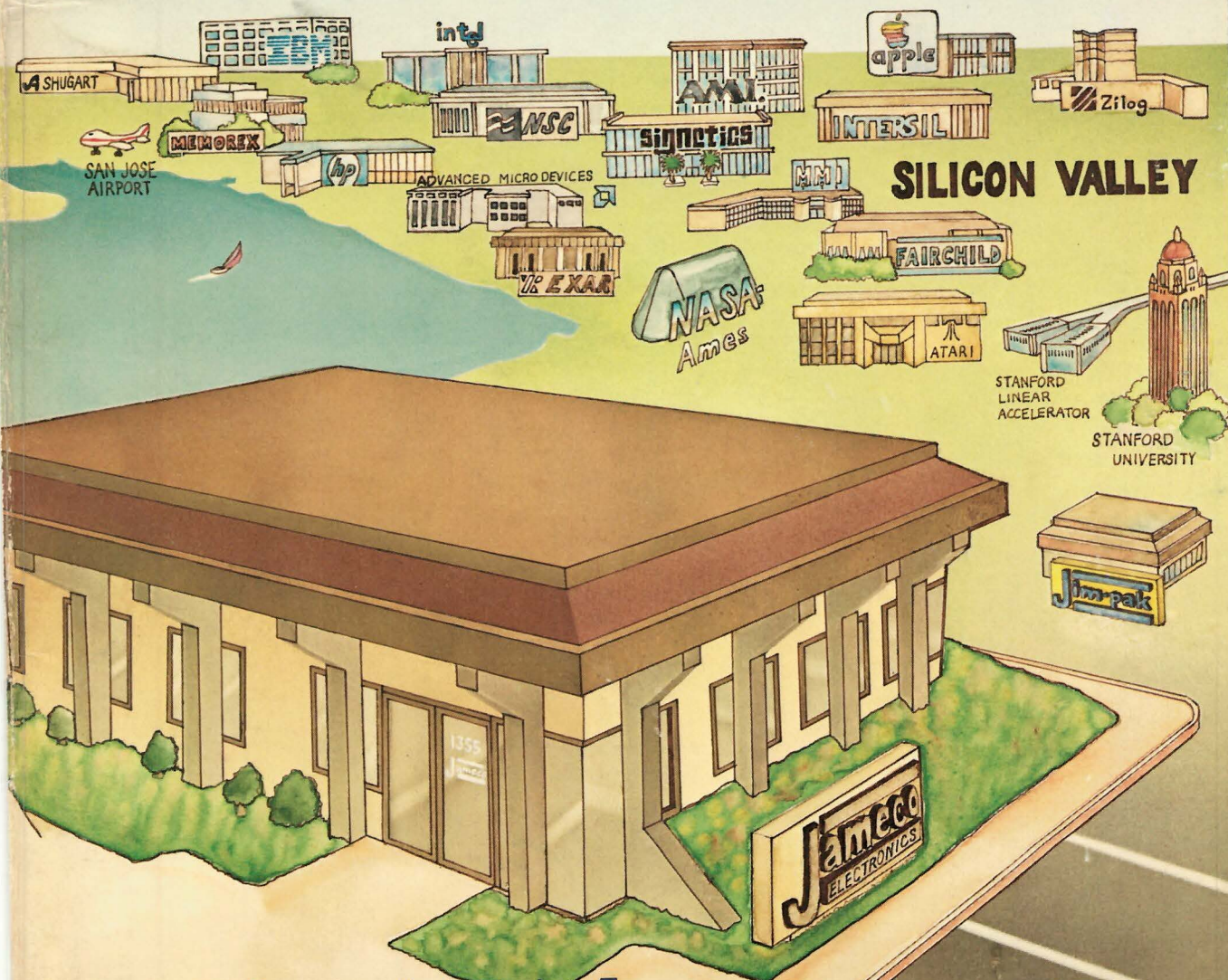


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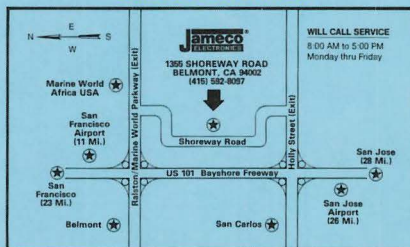
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| SN74107N | 14 | Dual J-K Master/Slave Flip Flop | .29 | SN74368N | 16 | Tri-State Hex Buffer Inverter (DM8098) | .55 |
| SN74109N | 16 | Dual J-K Pos-Edge Triggered F-F (9024) | .39 | SN74390N | 16 | Dual 4-Bit Decade Counter | 1.49 |
| SN74116N | 24 | Dual 4-Bit Latches w/Clear (9308) | 1.49 | SN74393N | 14 | Dual 4-Bit Binary Counter w/Individual Clocks | 1.49 |
| SN74120N | 16 | Dual Pulse Synchronizer | 1.95 | | | | |

— DUAL IN-LINE PACKAGES AS PER NATIONAL SEMICONDUCTOR'S SPECIFICATIONS —



CN,E, or V Packages
8 pin Mini-DIP
.250W x .400L



A, B or N Packages
14,16,18 or 20 pin
.250W x .400L



14-770L
16-870L
18-870L
20-1.04L



L or N Package
22 pin
.40W x 1.10L



J,L,N or P Package
24, 28, 40 pin
24-.515W x 1.29L
28-.515W x 1.49L
40-.530W x 2.06L

NEW**FAST****74F00 SERIES****FAST****NEW**

| Part No. | Pins | Function | Price | Part No. | Pins | Function | Price |
|----------|------|---------------------------------|--------|----------|------|---|--------|
| 74F00 | 14 | Quad 2-Input NAND Gate | \$.69 | 74F138 | 16 | Expandable 3/8 Decoder | \$1.69 |
| 74F02 | 14 | Quad 2-Input NOR Gate | .75 | 74F157 | 16 | Quad 2-Input Multiplexer | 1.69 |
| 74F04 | 14 | Hex Inverter | .89 | 74F158 | 16 | Quad 2-Input Multiplexer (Inverted) | 1.69 |
| 74F08 | 14 | Quad 2-Input AND Gate | .75 | 74F193 | 16 | 4-Bit Up/Down Binary Counter | 5.29 |
| 74F10 | 14 | Triple 3-Input NAND Gate | .75 | 74F240 | 20 | Tri-State Octal Line Driver (Inverting) | 3.75 |
| 74F32 | 14 | Quad 2-Input OR Gate | .79 | 74F244 | 20 | Tri-State Octal Line Driver | 3.49 |
| 74F74 | 14 | Dual D Flip-Flop | .85 | 74F257 | 16 | Tri-State Quad 2-Input Multiplexer | 1.79 |
| 74F86 | 14 | Quad Exclusive OR Gate | 1.15 | 74F373 | 20 | Tri-State Octal Latch | 4.89 |
| 74F109 | 16 | Dual JK Positive Edge Flip-Flop | .95 | 74F374 | 20 | Tri-State Octal D Flip-Flop | 4.59 |

HIGH SPEED**74H00 SERIES****HIGH SPEED**

| | | | | | | | |
|-------|----|--|--------|--------|----|---|--------|
| 74H01 | 14 | Quad 2-Input Gate (Open Collector) | \$.59 | 74H54 | 14 | 4-Wide 2-Input AND/OR/Invert Gate | \$.59 |
| 74H05 | 14 | Hex Inverter (Open Collector) | .59 | 74H55 | 14 | 2-Wide 4-Input AND/OR/Invert Gate | .59 |
| 74H08 | 14 | Quad 2-Input AND Gate | .59 | 74H60 | 14 | Dual 4-Input Expander | .59 |
| 74H10 | 14 | Triple 3-Input NAND Gate | .59 | 74H61 | 14 | Triple 3-Input Expander | .59 |
| 74H11 | 14 | 3-Input Positive AND Gate | .59 | 74H62 | 14 | 4-Wide AND/OR Expander | .59 |
| 74H20 | 14 | Dual 4-Input NAND Gate | .59 | 74H71 | 14 | R-S Flip-Flop | .59 |
| 74H21 | 14 | Dual 4-Input Positive AND Gate | .59 | 74H72 | 14 | JK Master/Slave Flip-Flop | .59 |
| 74H22 | 14 | 4-Input Positive NAND Gate | .59 | 74H73 | 14 | Dual JK Master/Slave Flip-Flop | .69 |
| 74H40 | 14 | Dual 4-Input Buffer | .59 | 74H74 | 14 | Dual D Flip-Flop | .69 |
| 74H50 | 14 | Expand. Dual 2-Wide 2-In. AND/OR/Inv. Gate | .59 | 74H76 | 16 | Dual JK Master/Slave Flip-Flop | .99 |
| 74H51 | 14 | Dual 2-Wide 2-In. AND/OR/Invert Gate | .59 | 74H78 | 14 | Dual JK Flip-Flop with Preset | .99 |
| 74H52 | 14 | Expandable 4-Wide AND/OR Gate | .59 | 74H103 | 14 | Dual JK Negative Edge Triggered Flip-Flop | .69 |

LOW POWER**74L00 SERIES****LOW POWER**

| | | | | | | | |
|-------|----|------------------------------------|--------|--------|----|---|--------|
| 74L00 | 14 | Quad 2-Input NAND Gate | \$.59 | 74L85 | 16 | 4-Bit Magnitude Comparator | \$3.29 |
| 74L03 | 14 | Quad 2-Input Gate (Open Collector) | .59 | 74L86 | 14 | Quad Exclusive-OR Gate | .99 |
| 74L04 | 14 | Hex Inverter | .55 | 74L91 | 14 | 8-Bit Shift Register | 2.49 |
| 74L05 | 14 | Hex Inverter (Open Collector) | .59 | 74L93 | 14 | 4-Bit Binary Counter | 2.49 |
| 74L10 | 14 | Triple 3-Input NAND Gate | .59 | 74L95 | 14 | 4-Bit Right Shift/Left Shift Register | 2.49 |
| 74L20 | 14 | Dual 4-Input NAND Gate | .59 | 74L98 | 16 | 4-Bit Storage Register | 2.49 |
| 74L30 | 14 | 8-Input NAND Gate | .49 | 74L123 | 16 | TTL/Monostable Multivibrator | 1.49 |
| 74L32 | 14 | Quad 2-Input Positive OR Gate | .69 | 74L154 | 24 | 4-Line to 16-Line Decoder/Demultiplexer | 3.49 |
| 74L42 | 16 | BCD-to-Decimal Decoder | 1.95 | 74L164 | 14 | 8-Bit Serial Shift Register | 2.65 |
| 74L54 | 14 | 4-Wide 2-In. AND/OR/Invert Gate | .59 | 74L165 | 16 | Parallel Load 8-Bit Serial Shift Register | 2.65 |
| 74L72 | 14 | JK Master/Slave Flip-Flop | .79 | 74L192 | 16 | BCD Up/Down Counter | 2.95 |
| 74L73 | 14 | Dual JK Master/Slave Flip-Flop | .99 | 74L193 | 16 | 4-Bit Binary Up/Down Counter | 2.95 |
| 74L74 | 14 | Dual D Flip-Flop | .99 | 74L195 | 16 | 4-Bit Parallel-Access Shift Register | 1.95 |

SCHOTTKY**74S00 SERIES****SCHOTTKY**

| | | | | | | | |
|--------|----|--|--------|---------|----|---|--------|
| 74S00 | 14 | Quad 2-Input NAND Gate | \$.35 | 74S175 | 16 | Quad D Flip-Flop | \$1.09 |
| 74S02 | 14 | Quad 2-Input NOR Gate | .35 | 74S181 | 24 | Arithmetic Logic Unit | 3.75 |
| 74S03 | 14 | Quad 2-Input NAND Gate (Open Collector) | .35 | 74S182 | 16 | Look-Ahead Carry Generators | 1.75 |
| 74S04 | 14 | Hex Inverter | .45 | 74S188* | 16 | 256-Bit (32x8) PROM (Open Collector) | 1.75 |
| 74S05 | 14 | Hex Inverter (Open Collector) | .45 | 74S189 | 16 | 4-Bit (16x4) RAM Tri-State | 2.95 |
| 74S08 | 14 | Quad 2-Input AND Gate | .45 | 74S194 | 16 | 4-Bit Bi-Directional Shift Register | 1.49 |
| 74S09 | 14 | Quad 2-Input AND Gate (Open Collector) | .39 | 74S196 | 16 | 4-Bit Parallel Shift Register (93S00) | 1.49 |
| 74S10 | 14 | Triple 3-Input NAND Gate | .35 | 74S240 | 14 | Presettable Decade Counter (82S90) | 1.49 |
| 74S11 | 14 | Triple 3-Input AND Gate | .35 | 74S241 | 20 | Tri-State Octal Line Driver | 1.95 |
| 74S15 | 14 | Triple 3-Input AND Gate (Open Collector) | .35 | 74S242 | 14 | Tri-State Octal Line Driver (Non-Inverting) | 1.95 |
| 74S20 | 14 | Dual 4-Input NAND Gate | .35 | 74S243 | 14 | Quadruple Bus Transceiver | 2.19 |
| 74S22 | 14 | Dual 4-Input NAND Gate (Open Collector) | .35 | 74S244 | 20 | Quadruple Bus Transceiver | 2.19 |
| 74S30 | 14 | 8-Input NAND Gate | .35 | 74S251 | 16 | Tri-State Octal Line Driver | 2.19 |
| 74S32 | 14 | Quad 2-Input OR Gate | .45 | 74S252 | 16 | Tri-State 74S151 | .99 |
| 74S37 | 14 | Quad 2-Input NAND Buffer | .99 | 74S253 | 16 | Tri-State 74S153 | .99 |
| 74S38 | 14 | Quad 2-Input NAND Buffer (Open Collector) | .89 | 74S257 | 16 | Tri-State 74S157 | .99 |
| 74S40 | 14 | Dual 4-Input NAND Buffer | .35 | 74S258 | 16 | Tri-State 74S158 | .99 |
| 74S51 | 14 | Dual 2-Input AND/OR-Invert Gate | .35 | 74S260 | 14 | Dual 5-Input NOR Gate | .79 |
| 74S64 | 14 | AND-OR-Invert Gate | .39 | 74S273 | 20 | Octal D-Type Flip-Flop (Clear) | 2.39 |
| 74S65 | 14 | AND-OR-Invert Gate (Open Collector) | .39 | 74S280 | 14 | 9-Bit Parity Generator | 1.89 |
| 74S74 | 14 | Dual D Flip-Flop | .55 | 74S287* | 16 | 1K-Bit (256x4) PROM Tri-State | 1.79 |
| 74S85 | 16 | 4-Bit Magnitude Comparator | 1.99 | 74S288* | 16 | 256-Bit (32x8) PROM Tri-State | 1.79 |
| 74S86 | 14 | Quad Exclusive OR Gate | .55 | 74S289 | 16 | 64-Bit (16x4) RAM Open Collector | 2.95 |
| 74S112 | 16 | Dual JK Flip-Flop | .55 | 74S299 | 20 | 8-Bit Universal Shift/Storage Register | 5.95 |
| 74S113 | 14 | Dual JK Flip-Flop (Preset) | .55 | 74S373 | 20 | Octal D-Type Latch | 2.49 |
| 74S114 | 14 | Dual JK F-F with Preset, Comm., Clk., Clr. | .55 | 74S374 | 20 | Octal D Flip-Flop Tri-State | 2.49 |
| 74S124 | 16 | Dual Voltage-Controlled Oscillators | 2.75 | 74S379 | 16 | 4-Bit Register, Common Enable | 2.95 |
| 74S132 | 14 | Quad Schmitt Trigger | 1.89 | 74S381 | 20 | Arithmetic Logic Unit/Function Generator | 5.95 |
| 74S133 | 16 | 13-Input NAND Gate | .45 | 74S387* | 16 | 1K-Bit (256x4) PROM Open Collector | 1.95 |
| 74S134 | 16 | Tri-State 12-Input NAND Gate | .39 | 74S412 | 24 | 8-Bit Input/Output (DP8212) | 2.95 |
| 74S135 | 16 | Quad Exclusive OR/NOR Gate | .89 | 74S428 | 28 | System Controller/Bus Driver (DP8228) | 4.95 |
| 74S136 | 16 | Quad Exclusive OR Gate | 1.39 | 74S438 | 28 | System Controller (DP8238) | 4.95 |
| 74S138 | 16 | Expandable 3/8 Decoder | .89 | 74S471 | 20 | 2K-Bit (256x8) PROM Tri-State (TBP28L22N) | 4.95 |
| 74S139 | 16 | Expandable 2/4 Decoder | .89 | 74S472* | 20 | 4K-Bit (512x8) PROM Tri-State | 4.95 |
| 74S140 | 14 | Dual 4-Input NAND Driver | .69 | 74S473* | 20 | 4K-Bit (512x8) PROM Open Collector | 4.95 |
| 74S151 | 16 | 8-Input Multiplexer | .99 | 74S474* | 24 | 4K-Bit (512x8) PROM Tri-State | 4.95 |
| 74S153 | 16 | Dual 4/1 Multiplexer | .99 | 74S475* | 24 | 4K-Bit (512x8) PROM Open Collector | 4.95 |
| 74S157 | 16 | Quad 2-Input Multiplexer | .99 | 74S476* | 18 | 4K-Bit (1024x4) PROM Tri-State (TBP24S41N) | 6.95 |
| 74S158 | 16 | Quad 2-Input Multiplexer (Inverted) | .99 | 74S478* | 24 | 8K-Bit (1024x8) PROM (TBP28S86N) O.C. | 9.95 |
| 74S160 | 16 | Decade Counter with Asynchronous Clear | 2.29 | 74S570* | 16 | 2K-Bit (512x4) PROM Open Collector | 2.95 |
| 74S161 | 16 | Presettable Binary Counter | 2.29 | 74S571* | 16 | 2K-Bit (512x4) PROM Tri-State | 2.95 |
| 74S162 | 16 | Presettable Decade Counter Synchronous | 2.29 | 74S572* | 18 | 4K-Bit (1024x4) PROM Open Collector | 4.95 |
| 74S163 | 16 | Synchronous 4-Bit Counter | 2.29 | 74S573* | 18 | 4K-Bit (1024x4) PROM Tri-State | 4.95 |
| 74S169 | 16 | Synchronous 4-Bit Up/Down Binary Counter | 4.29 | 74S940 | 20 | Octal Buffer with Tri-State Outputs | 2.49 |
| 74S174 | 16 | Hex D Flip-Flop | 1.09 | 74S941 | 20 | Octal Buffer with Tri-State Outputs | 2.49 |

*Bipolar

*PROMs

| Part No. | Pins | Function | Price | Part No. | Pins | Function | Price |
|----------|------|--|--------|----------|------|---|--------|
| 74LS00 | 14 | Quad 2 NAND Gate | \$.29 | 74LS168 | 16 | Synch. Decade Up/Down Counter (74LS668) | \$1.19 |
| 74LS01 | 14 | Quad 2-Input NAND Gate | .29 | 74LS169 | 16 | Synch. Binary Up/Down Counter (74LS669) | 1.49 |
| 74LS02 | 14 | Quad 2 NOR Gate | .35 | 74LS170 | 16 | 4x4 Register File | 1.49 |
| 74LS03 | 14 | Quad 2 NAND Gate | .29 | 74LS173 | 16 | Quad D Register (Tri-State) | .69 |
| 74LS04 | 14 | Hex Inverter | .39 | 74LS174 | 16 | Hex D Flip Flop with Clear | .69 |
| 74LS05 | 14 | Hex Inverter (Open Collector) | .35 | 74LS175 | 16 | Quad D Flip Flop | .69 |
| 74LS08 | 14 | Quad 2-Input AND Gate | .35 | 74LS181 | 24 | Arithmetic Logic Unit | 2.49 |
| 74LS09 | 14 | Quad 2-Input AND Gate (Open Collector) | .35 | 74LS189 | 16 | 64-Bit RAM Tri-State | 3.95 |
| 74LS10 | 14 | Triple 3 NAND Gate | .35 | 74LS190 | 16 | Up/Down Decade Counter | .79 |
| 74LS11 | 14 | Triple 3-Input AND Gate | .35 | 74LS191 | 16 | Up/Down Binary Counter | .89 |
| 74LS12 | 14 | 3-Input NAND Gate (Open Collector) | .35 | 74LS192 | 16 | 4-Bit Up/Down BCD Counter | .79 |
| 74LS13 | 14 | Dual Schmitt Trigger | .39 | 74LS193 | 16 | 4-Bit Up/Down Binary Counter | .89 |
| 74LS14 | 14 | Hex Schmitt Trigger | .59 | 74LS194 | 16 | 4-Bit Bi-Directional Universal Shift Register | .69 |
| 74LS15 | 14 | Triple 3-Input AND Gate | .35 | 74LS195 | 16 | 4-Bit Parallel-Access Shift Register | .59 |
| 74LS20 | 14 | Dual 4 NAND Gate | .29 | 74LS196 | 14 | Presetable Decade Counter | .89 |
| 74LS21 | 14 | Dual 4-Input AND Gate | .35 | 74LS197 | 14 | Preset Binary Counter | .89 |
| 74LS22 | 14 | Dual 4-Input NAND Gate (Open Collector) | .19 | 74LS221 | 16 | Dual One-Shot | 1.09 |
| 74LS26 | 14 | Quad 2-Input Interface Positive NAND Gate | .29 | 74LS240 | 20 | Octal Inverting Bus/Line Driver | 1.09 |
| 74LS27 | 14 | Triple 3 NOR Gate | .35 | 74LS241 | 20 | Octal Bus/Line Driver | .99 |
| 74LS28 | 14 | Quad 2-Input Positive NOR Buffer | .39 | 74LS242 | 14 | Quad Bus Transceiver Inverting | 1.09 |
| 74LS30 | 14 | 8-Input NAND Gate | .35 | 74LS243 | 14 | Tri-State Quad Transceiver | 1.09 |
| 74LS32 | 14 | Quad 2-Input Positive OR Gate | .39 | 74LS244 | 20 | Octal Driver Non-Inverting Tri-State | 1.29 |
| 74LS33 | 14 | Quad 2-Input NOR Buffer (Open Collector) | .49 | 74LS245 | 20 | Octal Bus Transceiver Non-Inverting | 1.49 |
| 74LS37 | 14 | Quad 2-Input NAND Buffer | .35 | 74LS247 | 16 | BCD to 7-Segment Decoder/Driver | .89 |
| 74LS38 | 14 | Quad 2-Input NAND Buffer (Open Collector) | .39 | 74LS248 | 16 | BCD to 7-Segment Decoder/Driver | .89 |
| 74LS40 | 14 | Dual 4 NAND Buffer | .29 | 74LS249 | 16 | BCD to 7-Segment Decoder/Driver | .89 |
| 74LS42 | 16 | BCD-to-Decimal Decoder | .49 | 74LS251 | 16 | Tri-State 8-Channel Multiplexer | .59 |
| 74LS47 | 16 | 7-Segment Decoder/Driver | .89 | 74LS253 | 16 | Dual 4-Input Multiplexer Tri-State | .59 |
| 74LS48 | 16 | BCD to 7-Segment Decoder/Driver | .75 | 74LS257 | 16 | Quad 2-Input Multiplexer Tri-State | .59 |
| 74LS49 | 14 | BCD to 7-Segment Decoder/Driver | .75 | 74LS258 | 16 | Quad 2/1 Multiplexer | .59 |
| 74LS51 | 14 | Dual 2-Input AND/OR Invert Gate | .29 | 74LS259 | 16 | 8-Bit Addressable Latch | 1.19 |
| 74LS54 | 14 | Quad 2-Input AND/OR Invert Gate | .29 | 74LS260 | 14 | Dual 5-Input NOR Gate | .59 |
| 74LS55 | 14 | Dual 4-Input AND/OR Invert Gate | .29 | 74LS266 | 14 | Quad Ex-NOR Gate | .49 |
| 74LS73 | 14 | Dual JK Flip Flop with Clear | .39 | 74LS273 | 20 | 8-Bit D Type Register | 1.49 |
| 74LS74 | 14 | Dual D Flip Flop | .49 | 74LS279 | 16 | Quad S-R Latches | .49 |
| 74LS75 | 16 | Quad Latch | .45 | 74LS280 | 14 | 9-Bit Odd/Even Parity Generator/Checker | 1.95 |
| 74LS76 | 16 | Dual JK Flip Flop with Preset and Clear | .39 | 74LS283 | 16 | 4-Bit Full Adder | .69 |
| 74LS78 | 14 | Dual JK Flip Flop w/Preset Comm. Clk & Clr | .45 | 74LS289 | 16 | 64-Bit RAM Open Collector | 2.95 |
| 74LS83 | 16 | 4-Bit Full Adder | .59 | 74LS293 | 14 | 4-Bit Binary Counter | .69 |
| 74LS85 | 16 | 4-Bit Magnitude Comparator | .89 | 74LS298 | 16 | Quad 2-Input Multiplexer with Storage | .89 |
| 74LS86 | 14 | Quad Exclusive OR Gate 2-Input | .39 | 74LS299 | 20 | 8-Bit Universal Shift/Storage Register | 2.95 |
| 74LS90 | 14 | Decade Counter | .55 | 74LS322 | 20 | 8-Bit Serial/Parallel Reg. (25LS22) | 3.95 |
| 74LS91 | 14 | 8-Bit Shift Register | .79 | 74LS323 | 20 | 8-Bit Univ. Shift/Storage Reg. (25LS23) | 3.95 |
| 74LS92 | 14 | Divide-by-Twelve Counter | .55 | 74LS347 | 16 | BCD to 7-Segment Decoder | .79 |
| 74LS93 | 14 | 4-Bit Binary Counter | .59 | 74LS352 | 16 | Dual 4-Bit Multiplexer (Inv. Out) | 1.09 |
| 74LS95 | 14 | 4-Bit Parallel-Access Shift Register | .79 | 74LS353 | 16 | Dual 4-Bit Multiplexer (Inv. Out) | 1.09 |
| 74LS96 | 16 | 5-Bit Shift Register | .89 | 74LS364 | 20 | Octal D-Type Transparent Latch | 1.95 |
| 74LS107 | 14 | Dual JK Master-Slave Flip Flop | .39 | 74LS365 | 16 | Hex Buffer (Tri-State) | .49 |
| 74LS109 | 16 | Dual JK Positive Edge Flip Flop | .39 | 74LS366 | 16 | Hex Inverter (Tri-State) | .49 |
| 74LS112 | 16 | Dual JK Negative Edge Flip Flop | .45 | 74LS367 | 16 | Hex Buffer (Tri-State) | .49 |
| 74LS113 | 14 | Dual JK Negative Edge Flip Flop | .39 | 74LS368 | 16 | Hex Inverter (Tri-State) | .49 |
| 74LS114 | 14 | Dual JK Negative Edge Flip Flop | .39 | 74LS373 | 20 | Octal Transparent Latch | 1.49 |
| 74LS122 | 14 | Retriggerable Monostable Multivibrator | .49 | 74LS374 | 20 | Octal Dual Flip Flop (Tri-State) | 1.49 |
| 74LS123 | 16 | Monostable Multivibrator with Clear | .79 | 74LS375 | 16 | Quad Latch | .69 |
| 74LS125 | 14 | Tri-State Quad Buffer | .59 | 74LS377 | 20 | Octal D Register, Common Enable (25LS07) | 1.29 |
| 74LS126 | 14 | Quad Buffer (Tri-State) | .59 | 74LS378 | 16 | Hex D Register, Common Enable (25LS08) | 1.19 |
| 74LS132 | 14 | Quad Schmitt Trigger | .65 | 74LS379 | 16 | 4-Bit Register, Common Enable | 1.29 |
| 74LS133 | 16 | 13-Input NAND Gate | .59 | 74LS386 | 14 | Quad Ex-OR Gate | .39 |
| 74LS136 | 14 | Quad Exclusive OR Gate | .39 | 74LS388 | 16 | Quad D Reg., Std & 3-State Out. (25LS2518) | 3.95 |
| 74LS138 | 16 | Expandable 3/8 Decoder | .59 | 74LS390 | 16 | Dual 4-Bit Binary Counter | 1.19 |
| 74LS139 | 16 | Expandable Dual 2/4 Decoder | .59 | 74LS393 | 14 | Dual 4-Bit Binary Counter | 1.19 |
| 74LS145 | 16 | BCD-to-Decimal Decoder/Driver | 1.19 | 74LS399 | 16 | Quad 2-Mux with Q & Q Outputs (25LS09) | 1.49 |
| 74LS147 | 16 | 10-Line to 4-Line Priority Encoder | 1.95 | 74LS490 | 16 | Dual 4-Bit Decade Counter | 1.95 |
| 74LS148 | 16 | 8-Line to 3-Line Priority Encoder | 1.79 | 74LS533 | 20 | Octal Transparent Latch (Tri-State) | 1.95 |
| 74LS151 | 16 | 8-Input Multiplexer | .59 | 74LS534 | 20 | Octal D-Type Flip Flop (Tri-State) | 1.95 |
| 74LS153 | 16 | Dual 4-Input Multiplexer | .59 | 74LS540 | 20 | Octal Buffer/Line Driver (Tri-State) | 1.49 |
| 74LS154 | 24 | Single 4-16 Decoder | 1.49 | 74LS541 | 20 | Octal Buffer/Line Driver (Tri-State) | 1.49 |
| 74LS155 | 16 | Dual 2/4 Demultiplexer | .69 | 74LS640 | 20 | Octal Bus Transceiver (Inverting) Tri-State | 2.49 |
| 74LS156 | 16 | Dual 2/4 Demultiplexer (Open Collector) | .69 | 74LS641 | 20 | Octal Bus Transceiver (True) O.C. | 2.19 |
| 74LS157 | 16 | Quad 2/1 Multiplexer | .69 | 74LS644 | 20 | Octal Bus Transceiver (True/Inverting) O.C. | 2.19 |
| 74LS158 | 16 | Quad 2/1 Multiplexer (Inv. Out) | .59 | 74LS645 | 20 | Octal Bus Transceiver (True) Tri-State | 2.19 |
| 74LS160 | 16 | Presetable Decade Counter | .69 | 74LS670 | 16 | 4x4 Register File (Tri-State) | 1.49 |
| 74LS161 | 16 | Presetable Binary Counter | .69 | 74LS688 | 20 | 8-Bit Magnitude Comparator (25LS2521) | 2.95 |
| 74LS162 | 16 | Presetable Decade Counter with Clear | .69 | 81LS95 | 20 | Tri-State Octal Buffer - True (74LS465) | 1.49 |
| 74LS163 | 16 | Presetable Binary Counter with Clear | .69 | 81LS96 | 20 | Tri-State Octal Buffer - Inverting (74LS466) | 1.49 |
| 74LS164 | 14 | 8-Bit Shift Register | .89 | 81LS97 | 20 | Tri-State Octal Buffer - True (74LS467) | 1.49 |
| 74LS165 | 16 | Parallel Load 8-Bit Serial Shift Register | .89 | 81LS98 | 20 | Tri-State Octal Buffer - Inverting (74LS468) | 1.49 |
| 74LS166 | 16 | 8-Bit Shift Register | 1.49 | | | | |

NEW!**ADVANCED
LOW POWER SCHOTTKY****74ALS00 SERIES****ADVANCED
LOW POWER SCHOTTKY****NEW!**

| Part No. | Pins | Function | Price |
|----------|------|--------------------------|--------|
| 74ALS00 | 14 | Quad 2-Input NAND Gate | \$5.99 |
| 74ALS02 | 14 | Quad 2-Input NOR Gate | .59 |
| 74ALS04 | 14 | Hex Inverter | .59 |
| 74ALS08 | 14 | Quad 2-Input AND Gate | .59 |
| 74ALS10 | 14 | Triple 3-Input NAND Gate | .59 |
| 74ALS30 | 14 | 8-Input NAND Gate | .59 |
| 74ALS32 | 14 | Quad 2-Input OR Gate | .65 |
| 74ALS74 | 14 | Dual D Flip-Flop | .79 |

| Part No. | Pins | Function | Price |
|----------|------|---|--------|
| 74ALS109 | 16 | Dual JK Positive Edge Flip-Flop | \$7.99 |
| 74ALS138 | 16 | Expandable 3/8 Decoder | 1.25 |
| 74ALS240 | 20 | Tri-State Octal Line Driver (Inverting) | 2.25 |
| 74ALS244 | 20 | Tri-State Octal Line Driver | 2.25 |
| 74ALS245 | 20 | Octal Bus Transceiver (Non-Inverting) | 2.59 |
| 74ALS373 | 20 | Tri-State Octal Latch | 2.59 |
| 74ALS374 | 20 | Tri-State Octal D Flip-Flop | 2.59 |

INTERISIL***Intersil's Evaluation Kits**

| | | | |
|--------------|---------|--|---------|
| FE0202D | 40 | 4-Digit LCD Display (for 7106 & 7116) | \$14.95 |
| FE0203D | 40 | 3½-Digit LCD Display (for 7106 & 7116) | 14.95 |
| 7106CPL | 40 | 3½-Digit A/D (LCD Drive) Converter | 10.49 |
| 7106EV/Kit* | 40 | IC, Circuit Board, Display & Comp. (LCD) | 46.95 |
| 7107CPL | 40 | 3½-Digit A/D (LED Drive) Converter | 10.95 |
| 7107EV/Kit* | 40 | IC, Circuit Board, Display & Comp. (LED) | 46.95 |
| 7116CPL | 40 | 3½-Digit A/D LCD Conv. w/Display HLD. | 10.95 |
| 7201IUS | TO-72/4 | Low Battery Volt Indicator | 2.25 |
| 7205IPG | 24 | CMOS LED Stopwatch/Timer | 14.95 |
| 7205EV/Kit* | 24 | Stopwatch Chip, XTL & Data Sheet | 16.95 |
| 7206CJPE | 16 | Tone Generator | 4.95 |
| 7206EV/Kit* | 16 | Tone Generator Chip, XTL & Data Sheet | 7.95 |
| 7207AIPD | 14 | Oscillator Controller | 5.95 |
| 7207AEV/Kit* | 14 | Freq. Controller Chip, XTL & Data Sheet | 8.49 |
| 7208IP | 28 | CMOS 7 Decade Counter | 17.95 |
| 7209IPA | 8 | Clock Generator | 3.95 |
| 7215IPG | 24 | 4 Function CMOS Stopwatch CKT (LED) | 16.95 |
| 7215EV/Kit* | 24 | 4 Func. Stopwatch Chip, XTL & Data Sheet | 19.49 |
| 7216AUI | 28 | 8-Digit Univ. Counter Common Anode | 31.49 |
| 7216CUI | 28 | 8-Digit Freq. Counter Common Anode | 26.49 |
| 7216DPI | 28 | 8-Digit Freq. Counter Common Cathode | 21.49 |

| | | | |
|----------|----|----------------------------------|---------|
| 7217IJI | 28 | 4-Digit LED Up/Down Counter C.A. | \$10.95 |
| 7217AIP | 28 | 4-Digit LED Up/Down Counter C.C. | 9.95 |
| 7218CUI | 28 | 8-Digit Univ. LED Drive C.A. | 10.95 |
| 7224IPL | 40 | LCD 4½-Digit Up Counter Driver | 10.95 |
| 7226AIJL | 40 | 8-Digit Univ. Counter C.A. | 31.49 |

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|-------------|----|---|----------------|
| 7226AEV/Kit | 40 | 5 Func. Counter Chip, XTL & Comp. Measures Frequency, Period, Time Interval, Frequency A/B, and Events (Unit Counter) | \$99.95 |
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|----------|---------|---------------------------------------|------|
| 7240IJE | 16 | CMOS Bin Prog. Timer/Counter | 4.95 |
| 7242IJA | 8 | CMOS Divide-by-256 RC Timer | 2.25 |
| 7250IJE | 16 | CMOS BCD Prog. Timer/Counter | 4.95 |
| 7555IPA | 8 | CMOS 555 Timer | 1.19 |
| 7556IPD | 14 | CMOS 555 Timer | 1.95 |
| 7660CPA | 8 | Voltage Converter (+5 to ±5V) | 2.95 |
| 8038CCPD | 14 | Waveform Generator | 3.95 |
| 8048CCPE | 16 | Monolithic Log Amp | 9.95 |
| 8069CCQ | TO-52/2 | 50ppm Band-GAPV. Ref. Diode (7107CPL) | 2.59 |
| 8211CPA | 8 | Volt Ref/Indicator (Programmable) | 2.49 |
| 8212CPA | 8 | Volt Ref/Indicator (Programmable) | 2.49 |

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| | | | |
|--------|----|--|--------|
| CD4000 | 14 | Dual 3-Input NOR Gate plus Inverter | \$2.99 |
| CD4001 | 14 | Quad 2-Input NOR Gate | .29 |
| CD4002 | 14 | Dual 4-Input NOR Gate | .29 |
| CD4006 | 14 | 18-Stage Static Shift Register | .89 |
| CD4007 | 14 | Dual Complementary Pair plus Inverter | .29 |
| CD4008 | 16 | 4-Bit Binary Full Adder | .89 |
| CD4009 | 16 | Hex/Buffer/Converter (Inverting) | .59 |
| CD4010 | 16 | Hex/Buffer/Converter (Non-Inverting) | .49 |
| CD4011 | 14 | Quad 2-Input NAND Gate | .29 |
| CD4012 | 14 | Dual 4-Input NAND Gate | .29 |
| CD4013 | 14 | Dual D Flip-Flop with Set/Reset | .39 |
| CD4014 | 16 | 8-Stage Static Shift Register | .89 |
| CD4015 | 16 | Dual 4-Stage Static Shift Register | .39 |
| CD4016 | 14 | Quad Bilateral Switch | .49 |
| CD4017 | 16 | Decade Counter/Divider | .79 |
| CD4018 | 16 | Presetable Divide-by-N Counter | .79 |
| CD4019 | 16 | Quad AND/OR Select Gate | .49 |
| CD4020 | 16 | 14-Stage Binary/Ripple Counter | .75 |
| CD4021 | 16 | 8-Stage Static Shift Register | .75 |
| CD4022 | 16 | Divide-by-8 Counter/Divider | .75 |
| CD4023 | 14 | Triple 3-Input NAND Gate | .29 |
| CD4024 | 14 | 7-Stage Binary Counter | .69 |
| CD4025 | 14 | Triple 3-Input NOR Gate | .29 |
| CD4026 | 16 | Decade Counter/Divider | 1.59 |
| CD4027 | 16 | Dual JK Master-Slave Flip-Flop | .69 |
| CD4028 | 16 | BCD-to-Decimal Decoder | .45 |
| CD4029 | 16 | Presetable Up/Down Counter | .79 |
| CD4030 | 14 | Quad Exclusive-OR Gate (74C86) | .39 |
| CD4034 | 24 | 8-Bit Shift Register (14034) | 1.79 |
| CD4035 | 16 | 4-Stage Parallel In/Out Shift Register | .79 |
| CD4040 | 16 | 12-Stage Binary/Ripple Counter | .75 |
| CD4041 | 14 | Quad True/Complement Buffer | .69 |
| CD4042 | 16 | Quad Clocked D Latch | .69 |
| CD4043 | 16 | Quad NOR R-S Latch | .79 |
| CD4044 | 16 | Quad 3-State NAND R-S Latch | .79 |
| CD4046 | 16 | Micropower Phase-Locked Loop | .89 |
| CD4047 | 16 | Monostable/Astable Multivibrator | .89 |
| CD4048 | 16 | Expandable 8-Input Gate | .59 |
| CD4049 | 16 | Hex/Buffer/Converter (Inverting) | .39 |
| CD4050 | 16 | Hex/Buffer/Converter (Non-Inverting) | .39 |
| CD4051 | 16 | Single 8-Channel Multiplexer | .79 |
| CD4052 | 16 | Differential 4-Channel Multiplexer | .89 |
| CD4053 | 16 | Triple 2-Channel Multiplexer | .79 |
| CD4056 | 16 | BCD to 7-Segment Decoder/Driver | 2.95 |
| CD4059 | 24 | Programmable Divide-by-N Counter | 3.95 |
| CD4060 | 16 | 14-Stage Ripple-Carry Binary | .89 |

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|--------|----|---|--------|
| CD4066 | 14 | Quad Bilateral Switch | \$4.45 |
| CD4068 | 14 | 8-Input NAND Gate | .39 |
| CD4069 | 14 | Hex Inverter (74C04) | .35 |
| CD4070 | 14 | Quad Exclusive-OR Gate (74C86) | .29 |
| CD4071 | 14 | Quad 2-Input OR Gate | .29 |
| CD4072 | 14 | Dual 4-Input OR Gate | .29 |
| CD4073 | 14 | Triple 3-Input AND Gate | .29 |
| CD4075 | 14 | Triple 3-Input OR Gate | .29 |
| CD4076 | 16 | Quad D Type Register (74C173) | .89 |
| CD4077 | 14 | Quad Exclusive-NOR Gate | .35 |
| CD4078 | 14 | 8-Input NOR Gate | .49 |
| CD4081 | 14 | Quad 2-Input AND Gate | .29 |
| CD4082 | 14 | Dual 4-Input AND Gate | .29 |
| CD4093 | 14 | Quad 2-Input NAND Schmitt Trigger | .49 |
| CD4094 | 16 | 8-Stage Shift-and-Store Bus Register | 1.95 |
| CD4098 | 16 | COS/MOS Dual Monostable Multivibrator | 1.95 |
| CD4099 | 16 | 8-Bit Addressable Latch | 1.89 |
| CD4502 | 16 | Strobed Hex Inverter/Buffer (14502) | .89 |
| CD4503 | 16 | Tri-State Hex Buffer (80C97) | .69 |
| CD4506 | 16 | Dual Exp. AND/OR Invert Gate (14506) | 1.29 |
| CD4507 | 14 | Quad Exclusive-OR Gate (14507) | 1.19 |
| CD4508 | 24 | Dual 4-Bit Latch (14508) | 1.95 |
| CD4510 | 16 | BCD Up/Down Counter (14510) | .85 |
| CD4511 | 16 | BCD to 7-Seg. Latch/Decoder/Driver (14511) | .85 |
| CD4512 | 16 | 8-Channel Data Selector (14512) | .85 |
| CD4514 | 24 | 4-Bit Latch/4-16 Line Decoder HI (14514) | 1.49 |
| CD4515 | 24 | 4-Bit Latch/4-16 Decoder (14515) | 1.49 |
| CD4516 | 16 | Binary Up/Down Counter (14516) | .89 |
| CD4518 | 16 | Dual BCD Up Counter (14518) | .89 |
| CD4519 | 16 | 4-Bit AND/OR Selector (14519) | .59 |
| CD4520 | 16 | Dual Binary Up Counter (14520) | .89 |
| CD4526 | 16 | Divide-by-N Counter (Binary) (14526) | 1.19 |
| CD4528 | 16 | Dual Monostable Multivibrator (14528) | 1.19 |
| CD4529 | 16 | Dual 4-Channel Analog Data Selector (14529) | 1.69 |
| CD4531 | 16 | 12-Bit Parity Tree (14531) | .89 |
| CD4538 | 16 | Dual Precision Mono. Multivibrator (14538) | 1.49 |
| CD4541 | 16 | Oscillator/Programmable Timer (14541) | 1.49 |
| CD4543 | 16 | BCD to 7-Segment Decoder (LCD) (14543) | 1.19 |
| CD4556 | 16 | Dual Binary 1 of 4 Decoder Inv. (14556) | .89 |
| CD4566 | 16 | Industrial Time Base Generator (14566) | 2.95 |
| CD4583 | 16 | Dual Schmitt Trigger (14583) | 2.49 |
| CD4584 | 14 | Hex Schmitt Trigger (14584/74C14) | .59 |
| CD4585 | 16 | Dual Comparator (14585/74C85) | 1.39 |
| CD4723 | 16 | Dual 4-Bit Addressable Latch | 1.19 |
| CD4724 | 16 | 8-Bit Addressable Latch | 1.19 |

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74C00 SERIES

CMOS

| Part No. | Pins | Function | Price |
|----------|------|--|--------|
| 74C00 | 14 | Quad 2-Input NAND Gate | \$.29 |
| 74C02 | 14 | Quad 2-Input NOR Gate | .35 |
| 74C04 | 14 | Hex Inverter (4069) | .35 |
| 74C08 | 14 | Quad 2-Input AND Gate | .35 |
| 74C10 | 14 | Triple 3-Input NAND Gate | .35 |
| 74C14 | 14 | Hex Schmitt Trigger (40106) (14584) | .59 |
| 74C20 | 14 | Dual 4-Input NAND Gate | .35 |
| 74C30 | 14 | 8-Input AND Gate | .35 |
| 74C32 | 14 | Quad 2-Input OR Gate | .39 |
| 74C42 | 16 | BCD-to-Decimal Decoder | 1.19 |
| 74C48 | 16 | BCD to 7-Segment Decoder/Driver | 1.79 |
| 74C73 | 14 | Dual JK Flip-Flop | .69 |
| 74C74 | 14 | Dual D Flip-Flop | .59 |
| 74C85 | 16 | 4-Bit Comparator (14585) | 1.39 |
| 74C86 | 14 | Quad Exclusive OR Gate (4070) | .29 |
| 74C89 | 16 | 64-Bit (16x4) RAM (Tri-State) (4725) | 5.95 |
| 74C90 | 14 | 4-Bit Decade Counter | 1.09 |
| 74C93 | 14 | 4-Bit Binary Counter | 1.09 |
| 74C95 | 14 | 4-Bit Shift Register | 1.19 |
| 74C107 | 14 | Dual JK Data Selector | .79 |
| 74C151 | 16 | 8-Bit Data Select/Multiplex with Strobe | 2.19 |
| 74C154 | 24 | 4-Line to 16-Line Decoder | 3.25 |
| 74C157 | 16 | Quad 2-Input Multiplexer | 1.75 |
| 74C160 | 16 | Synchronous Decade Counter (40160) | 1.19 |
| 74C161 | 16 | Synchronous Binary Counter (40161) | 1.19 |
| 74C162 | 16 | Fully Synchronous Decade Counter (40162) | 1.19 |
| 74C163 | 16 | Fully Synchronous Binary Counter (40163) | 1.19 |
| 74C164 | 14 | 8-Bit Serial-In Para-Out Shift Register | 1.29 |
| 74C165 | 16 | 8-Bit Parallel-Load Shift Register | 1.29 |

| Part No. | Pins | Function | Price |
|----------|------|--|--------|
| 74C173 | 16 | Tri-State Quad Latch (4076) | \$.89 |
| 74C174 | 16 | Hex Flip-Flop (40174) | 1.19 |
| 74C175 | 16 | Quad D Flip-Flop (40175) | 1.19 |
| 74C192 | 16 | Decade Up/Down Counter (40192) | 1.39 |
| 74C193 | 16 | Binary Up/Down Counter (40193) | 1.39 |
| 74C195 | 16 | 4-Bit Parallel Access Shift Register (40195) | 1.29 |
| 74C221 | 16 | Dual Monostable Multivibrator | 1.75 |
| 74C240 | 20 | Tri-State Octal Buffer (Inverting) | 1.95 |
| 74C244 | 20 | Tri-State Octal Buffer (Non-Inverting) | 1.95 |
| 74C373 | 20 | Octal Flow-Thru Latch Tri-State | 2.29 |
| 74C374 | 20 | Octal D Flip-Flop Tri-State (INS82C06) | 2.29 |
| 74C901 | 14 | Hex Inverting Buffer (TTL Interface) | .59 |
| 74C902 | 14 | Hex TTL Buffer | .79 |
| 74C903 | 14 | Hex Inverting Buffer (MOS Interface) | .59 |
| 74C906 | 14 | Hex Open Drain N-Channel Buffer | .59 |
| 74C907 | 14 | Open Drain Buffer (Active Pull Down) | .89 |
| 74C911 | 28 | Display Controller (INS8247) | 8.95 |
| 74C912 | 28 | Display Controller (INS8248) | 8.95 |
| 74C915 | 18 | 7-Segment to BCD Decoder | 1.19 |
| 74C917 | 28 | Display Controller | 8.95 |
| 74C920 | 22 | 256x4 1K Static RAM | 5.95 |
| 74C921 | 18 | 256x4 1K Static RAM | 5.95 |
| 74C922 | 18 | 16-Key Keyboard Encoder (INS8245) | 4.49 |
| 74C923 | 20 | 20-Key Keyboard Encoder (INS8246) | 4.95 |
| 74C925 | 16 | 4-Digit CTR w/MUX D Segment Driver | 5.95 |
| 74C926 | 18 | 4-Digit CTR w/MUX D Segment Driver | 5.95 |
| 74C930 | 18 | 1024x1 1K Static RAM | 5.95 |
| 80C95 | 16 | Tri-State Hex Buffer | .69 |
| 80C97 | 16 | Tri-State Hex Buffer (4503) | .69 |

HIGH SPEED CMOS

74HC00 SERIES

HIGH SPEED CMOS

| Part No. | Pins | Function | Price |
|----------|------|--|--------|
| 74HC00 | 14 | Quad 2-Input NAND Gate | \$.59 |
| 74HC02 | 14 | Quad 2-Input NOR Gate | .59 |
| 74HC03 | 14 | 2-Input NAND Gate (Open Drain) | .89 |
| 74HC04 | 14 | Hex Inverter (Buffered) | .59 |
| 74HCJ04 | 14 | Hex Inverter (Unbuffered) | .69 |
| 74HC08 | 14 | Quad 2-Input AND Gate | .59 |
| 74HC10 | 14 | Triple 3-Input NAND Gate | .59 |
| 74HC11 | 14 | Triple 3-Input AND Gate | .69 |
| 74HC14 | 14 | Hex Inverting Schmitt Trigger | .89 |
| 74HC20 | 14 | Dual 4-Input NAND Gate | .59 |
| 74HC27 | 14 | Triple 3-Input NOR Gate | .59 |
| 74HC30 | 14 | 8-Input NAND Gate | .69 |
| 74HC32 | 14 | Quad 2-Input OR Gate | .79 |
| 74HC42 | 16 | BCD-to-Decimal Decoder | 1.09 |
| 74HC51 | 14 | Dual 2-Input AND-OR-Invert Gate | .89 |
| 74HC58 | 14 | Dual AND/OR Gate | .89 |
| 74HC73 | 14 | Dual J-K Flip-Flop with Clear | .79 |
| 74HC74 | 14 | Dual D Flip-Flop with Preset and Clear | .79 |
| 74HC75 | 16 | 4-Bit Bistable Latch with Q&Q Output | .99 |
| 74HC76 | 16 | Dual J-K Flip-Flop with Preset and Clear | .79 |
| 74HC85 | 16 | 4-Bit Magnitude Comparator | 1.69 |
| 74HC86 | 14 | Quad 2-Input Exclusive-OR (XOR) Gate | .75 |
| 74HC107 | 14 | Dual J-K Flip-Flop with Clear | .79 |
| 74HC109 | 16 | Dual J-K Flip-Flop with Preset and Clear | .79 |
| 74HC112 | 16 | Dual J-K Flip-Flop with Preset and Clear | .79 |
| 74HC113 | 14 | Dual J-K Flip-Flop with Preset | .79 |
| 74HC123 | 16 | Dual Monostable Multivibrator | 2.29 |
| 74HC125 | 14 | Tri-State Quad Buffer | 1.75 |
| 74HC132 | 14 | Quad 2-Input NAND Schmitt Trigger | 1.29 |
| 74HC137 | 16 | 1 to 8 with Latch Decoder (Inverting Output) | 1.59 |
| 74HC138 | 16 | 3-to-8 Line Decoder | 1.19 |
| 74HC139 | 16 | Expandable Dual 2/4 Line Decoder | 1.05 |
| 74HC147 | 16 | 10/4 Line Priority Encoder | 1.29 |
| 74HC151 | 16 | 8-Channel Digital Multiplexer | .99 |
| 74HC153 | 16 | Dual 4-Input Multiplexer | 1.09 |
| 74HC154 | S-24 | 4/16 Line Decoder (use 24 pin-SLP Socket) | 2.65 |
| 74HC157 | 16 | Quad 2-Input Multiplexer | .99 |
| 74HC158 | 16 | Quad 2-Input Multiplexer (Inverting Output) | .99 |
| 74HC160 | 16 | Synchronous Decade Counter | 1.39 |
| 74HC161 | 16 | Synchronous Binary Counter | 1.39 |
| 74HC162 | 16 | Synchronous Decade Counter | 1.39 |
| 74HC163 | 16 | Synchronous Binary Counter | 1.39 |
| 74HC164 | 14 | 8-Bit Serial-in/Parallel-out Shift Register | 1.35 |
| 74HC165 | 14 | 8-Bit Parallel-in/Serial-out Shift Register | 2.15 |
| 74HC166 | 16 | 8-Bit Shift Register | 2.49 |
| 74HC173 | 16 | Tri-State Quad D Flip-Flop | 1.29 |

| Part No. | Pins | Function | Price |
|----------|------|---|--------|
| 74HC174 | 16 | Hex D Flip-Flop with Clear | \$1.09 |
| 74HC175 | 16 | Quad D Type Flip-Flop with Clear | 1.09 |
| 74HC190 | 16 | Up/Down Decade Counter | 1.59 |
| 74HC191 | 16 | Up/Down Binary Counter | 1.59 |
| 74HC192 | 16 | Synchronous Decade Up/Down Counter | 1.49 |
| 74HC193 | 16 | Synchronous Binary Up/Down Counter | 1.49 |
| 74HC194 | 16 | 4-Bit Bidirectional Universal Shift Register | 1.19 |
| 74HC195 | 16 | 4-Bit Parallel Shift Register | 1.19 |
| 74HC221 | 16 | Dual Monostable Multivibrator | 2.95 |
| 74HC237 | 16 | 3-to-8 Line Decoder with Address Latches | 1.49 |
| 74HC240 | 20 | Inverting Octal Tri-State Buffer | 2.29 |
| 74HC241 | 20 | Octal Tri-State Buffer (TTL Buffer) | 2.29 |
| 74HC242 | 14 | Inverting Quad Tri-State Transceiver | 2.15 |
| 74HC243 | 14 | Quad Tri-State Transceiver | 2.15 |
| 74HC244 | 20 | Octal Tri-State Buffer | 2.29 |
| 74HC245 | 20 | Octal Tri-State Transceiver | 2.59 |
| 74HC251 | 16 | Tri-State 8-Channel Multiplexer | .99 |
| 74HC253 | 16 | Dual 4-Channel Tri-State Multiplexer | 1.09 |
| 74HC257 | 16 | Quad 2-Channel Tri-State Multiplexer | .99 |
| 74HC259 | 16 | 8-Bit Addressable Latch 3-to-8 Line Decoder | 1.69 |
| 74HC266 | 14 | Quad 2-Input Exclusive-NOR (XNOR) Gate | .89 |
| 74HC273 | 20 | Octal D Flip-Flop | 2.79 |
| 74HC280 | 14 | 9-Bit Odd/Even Parity Generator/Checker | 4.59 |
| 74HC299 | 20 | 8-Bit Tri-State Universal Shift Register | 5.59 |
| 74HC366 | 16 | Tri-State Hex Inverter | 2.59 |
| 74HC367 | 16 | Tri-State Hex Buffer | 2.59 |
| 74HC373 | 20 | Tri-State Octal D Type Latch | 2.69 |
| 74HC374 | 20 | Tri-State Octal D Type Flip-Flop | 2.69 |
| 74HC390 | 16 | Dual 4-Bit Decade Counter | 1.59 |
| 74HC393 | 14 | Dual 4-Bit Binary Counter | 1.59 |
| 74HC533 | 20 | Tri-State Octal D Type Latch w/Inv. Output | 2.69 |
| 74HC534 | 20 | Tri-St. Octal D Type Flip-Flop (Inv. Outputs) | 2.69 |
| 74HC595 | 16 | 8-Bit Parallel-to-Serial Shift Register | 3.19 |
| 74HC688 | 20 | 8-Bit Mag. Comparator (Equality Detector) | 3.59 |
| 74HC4002 | 14 | Dual 4-Input NOR Gate | .59 |
| 74HC4017 | 16 | Decade Counter/Div. w/10 Decoded Outputs | 1.49 |
| 74HC4020 | 16 | 14-Stage Binary Counter | 1.49 |
| 74HC4024 | 14 | 7-Stage Ripple Counter | 1.75 |
| 74HC4040 | 16 | 12-Stage Binary Counter | 1.49 |
| 74HC4060 | 16 | 14-Stage Binary Counter | 1.49 |
| 74HC4075 | 14 | Triple 3-Input OR Gate | .59 |
| 74HC4078 | 14 | 8-Input NOR Gate | .59 |
| 74HC4511 | 16 | BCD-to-7 Segment Latch/Decoder Driver | 1.95 |
| 74HC4514 | S-24 | 4/16-Line Decoder w/Latch (use 24 pin-SLP socket) | 4.19 |
| 74HC4538 | 16 | Dual Retriggerable Monostable Multivib. | 2.59 |
| 74HC4543 | 16 | BCD-to-7 Seg. Latch/Decoder for LCDs | 3.75 |

LINEAR

| Part No. | Pins | Function | Price |
|------------|----------|---|--------|
| LH0002CN | 10 | Buffer Amplifier | \$5.95 |
| LM100CLH | TO-5/8 | Low Voltage (1.1 volt) Op Amp | 3.95 |
| LM111CLH | TO-5/8 | Precision DC Op Amp | 3.95 |
| DH0017CN | 10 | Relay/Lamp Driver | 4.95 |
| LH0070-OH | TO-5/8 | Precision BCD Buffered Reference | 2.95 |
| TL071CP | 8 | Low Noise BIFET Op Amp | .79 |
| TL072CP | 8 | Low Noise BIFET Dual Op Amp | 1.09 |
| TL074CN | 14 | Quad Low Noise BIFET Op Amp | 1.95 |
| TL081CP | 8 | JFET-Input Op Amp | .59 |
| TL082CP | 8 | Gen. Purpose BIFET Dual Op Amp | 1.19 |
| TL084CN | 14 | Gen. Purpose BIFET Quad Op Amp | 1.95 |
| LM109K | TO-3 | 5V 1.5A Regulator | 5.95 |
| LM300H | TO-5/8 | Positive Voltage Regulator (2V-20V) | .99 |
| LM301N | 8 | Improved Op Amp | .39 |
| LM301H | TO-5/8 | Improved Op Amp | .89 |
| LM302H | TO-5/8 | Voltage Follower | 2.49 |
| LM304H | TO-5/10 | Negative Voltage Regulator (0-30V) | 1.95 |
| LM305H | TO-5/8 | Positive Voltage Regulator (4.5V-40V) | .99 |
| LM307N | 8 | Op Amp (Super 741) | .49 |
| LM307H | TO-5/8 | Op Amp (Super 741) | .89 |
| LM308N | 8 | Micro Power Op Amp | .69 |
| LM308H | TO-5/8 | Micro Power Op Amp | 1.15 |
| LM309K | TO-3 | 5-Volt Amp Regulator (1 Amp) | 1.25 |
| LM310N | 8 | Improved Op Amp-Volt. Follower | 1.95 |
| LM310H | TO-5/8 | Improved Op Amp-Volt. Follower | 1.89 |
| LM311H | 8 | Hi-Performance Volt. Comparator | 1.05 |
| LM311H | TO-5/8 | Hi-Performance Volt. Comparator | 1.05 |
| LM312H | TO-5/8 | Op Amp | 2.79 |
| LM317K | TO-3 | 1.5A Adj. Pos. Regulator (1.2V-37V) | 3.49 |
| LM317LZ | TO-92/3 | 100mA Adjustable Regulator (1.2V-37V) | .75 |
| LM317MP | TO-202/3 | .5A/3 Term. Adj. Pos. Reg. (1.2V-37V) | 1.15 |
| LM317T | TO-220 | 1.5A/3 Term. Adj. Pos. Reg. (1.2V-37V) | 1.19 |
| LM318N | 8 | Precision Hi-Speed Op Amp | 1.59 |
| LM318H | TO-5/8 | Precision Hi-Speed Op Amp | 1.95 |
| LM319N | 14 | Hi-Speed Dual Comparator | 1.49 |
| LM320MP-12 | TO-202 | 12V Negative Voltage Regulator (0.50A) | .79 |
| LM320MLP-5 | TO-202 | 5V Negative Voltage Regulator (0.25A) | .79 |
| LM322N | 14 | Precision Timer | 1.49 |
| LM323K | TO-3 | 5-Volt Positive 3-Amp Regulator | 4.95 |
| LM324N | 14 | Low Power Quad Op Amp (ULN4336) | .59 |
| LM329DZ | TO-92/3 | Precision Zener 100PPM/C° 6.9V | .65 |
| LM331N | 8 | Precision Voltage to Freq. Converter | 3.95 |
| LM334Z | TO-92/3 | Constant Current Source | 1.19 |
| LM335Z | TO-92/3 | Voltage Mode Temperature Sensor | 1.29 |
| LM336Z | TO-92/3 | Voltage Reference (2.5V) | 1.09 |
| LM337MP | TO-202/3 | .5A/3 Term. Adj. Neg. Reg. (1.2V-37V) | 1.15 |
| LM337T | TO-220 | 1.5A/3 Term. Adj. Neg. Reg. (1.2V-37V) | 1.89 |
| LM338K | TO-3 | .5A Adjust. Pos. Regulator (1.2V-32V) | 6.95 |
| LM339N | 14 | Quad Comparator | .69 |
| LM341P-5 | TO-202/3 | 5V Pos. (0.5A) Volt Reg. (78M05-Similar) | .69 |
| LM341P-12 | TO-202/3 | 12V Pos. (0.5A) Volt Reg. (78M12-Similar) | .69 |
| LM341P-15 | TO-202/3 | 15V Pos. (0.5A) Volt Reg. (78M15-Similar) | .69 |
| LM342P-5 | TO-202/3 | 5V Pos. (0.25A) Volt Reg. | .65 |
| LM342P-12 | TO-202/3 | 12V Pos. (0.25A) Volt Reg. | .65 |
| LM342P-15 | TO-202/3 | 15V Pos. (0.25A) Volt Reg. | .65 |
| LF347N | 14 | Quad JFET Input Op Amp (Wide Band) | 1.49 |
| LM348N | 14 | Quad 741 Op Amp | .89 |
| LM350K | TO-3 | 3A/3 Term. Adj. Pos. Reg. (1.2V-33V) | 4.79 |
| LF351N | 8 | BIFET Op Amp | .59 |
| LF353N | 8 | Dual Bifet Op Amp (Compat. w/TL082CP) | .89 |
| LF355N | 8 | JFET Input Op Amp Low Power | 1.09 |
| LF356N | 8 | JFET General Purpose Input Op Amp | 1.09 |
| LM358N | 8 | Low Power Dual Op Amp | .59 |
| LM359N | 14 | High Speed Norton Op Amp | 1.79 |
| LM361H | TO-5/10 | High Speed Comparator | 2.39 |
| LM370N | 14 | AGC Squelch Amp | 4.95 |
| LM373N | 14 | AM/FM/SSB Strip | 4.95 |
| LM377N | 14 | Dual 2-Watt Power Amp (ULN2278) | 1.95 |
| LM380N | 14 | 2-Watt Audio Power Amp (ULN2280) | .89 |
| LM380N-8 | 8 | .6-Watt Audio Amp | 1.09 |
| LM381N | 14 | Low Noise Dual Pre-Amp (112dB) | 1.79 |
| LM382N | 14 | Low Noise Dual Pre-Amp (110dB) | 1.49 |
| LM384N | 14 | 5-Watt Audio Amp (ULN2281) | 1.95 |
| LM386N-3 | 8 | Low Voltage Audio Amp .500W/9V | .89 |
| LM387N | 8 | Low Noise Dual Pre-Amp | 1.39 |
| LM389N | 18 | Low Voltage Audio Amp w/XTRS | 1.19 |
| LM391N-80 | 16 | Audio Power Driver (±40V or +80V) | 1.19 |
| LM392N | 8 | Op Amp and Comparator | .59 |
| LM393N | 8 | Dual Comparator | .45 |
| LF398N | 8 | Sample and Hold Amplifier | 3.95 |
| LM399H | TO-5/4 | Temp. Compensated Prec. Ref. (5ppm/C°) | 4.95 |
| LF412CN | 8 | Bifet Lo-Off Set Op Amp (Dual) | 1.95 |
| TL494CN | 16 | Switching Reg. (Pulse Width Mod.) | 2.79 |
| TL496CP | 8 | Single Switching Regulator | 1.59 |
| NE531V | 8 | Op Amp | 1.79 |

| Part No. | Pins | Function | Price |
|------------|----------|---|--------|
| NE544N | 14 | Servo Amp | \$1.95 |
| NE550A | 14 | Voltage Regulator | 1.95 |
| NE550H | TO-5/10 | Precision Voltage Regulator | 1.95 |
| NE555V | 8 | Timer (MC1455P) | .35 |
| XR-L555 | 8 | Low Power 555 Timer | .69 |
| LM556N | 14 | Dual 555 Timer | .79 |
| NE558N | 16 | Quad Timer | 1.59 |
| NE564N | 16 | Digital Phase Locked Loop | 1.95 |
| LM565N | 14 | Phased Locked Loop | .99 |
| LM565CH | TO-5/10 | Phased Locked Loop | 2.19 |
| LM566CN | 8 | Function Generator | 1.49 |
| LM567V | 8 | Tone Decoder Phased Locked Loop | .99 |
| NE570N | 16 | Compander | 2.95 |
| NE571N | 16 | Compander | 2.49 |
| NE592N | 14 | Video Amp | 1.19 |
| LM703CN | 8 | RF-IF Amp | 1.49 |
| LM709N | 14 | Op Amp | .59 |
| LM709CH | TO-5/8 | Op Amp | .99 |
| LM710N | 14 | Voltage Comparator | .69 |
| LM710CH | TO-5/8 | Voltage Comparator | .99 |
| LM711N | 14 | Dual Difference Comparator | .79 |
| LM711CH | TO-5/10 | Dual Difference Comparator | 1.25 |
| LM723CN | 14 | Voltage Regulator (2V-37V) | .49 |
| LM723CH | TO-5/10 | Voltage Regulator (2V-37V) | 1.09 |
| LM725CN | 8 | Instrumentation Op Amp | 2.95 |
| LM733CN | 14 | Video Amp | .89 |
| LM733CH | TO-5/10 | Video Amp | 1.29 |
| LM739N | 14 | Dual Hi-Performance Op Amp (UA4739) | 1.95 |
| LM741CN | 8 | Compensated Op Amp (ULN2151) | .39 |
| LM741CH | TO-5/8 | Compensated Op Amp | .69 |
| LM741-14N | 14 | Compensated Op Amp | .69 |
| LM747CN | 14 | Dual 741 Op Amp | .69 |
| LM747CH | TO-5/10 | Dual 741 Op Amp | .89 |
| LM748CN | 8 | Frequency Adjusted 741 | .59 |
| LM748CH | TO-5/8 | Frequency Adjusted 741 | .99 |
| UA760HC | TO-5/8 | High-Speed Differential Comparator | 9.95 |
| DS8T26AN | 16 | Quad T.S. Bus Transc. (MC6880)(N8T26) | 1.59 |
| DS8T28N | 16 | Quad Tri-State Line Driver (N8T28) | 1.75 |
| LM1014N-2 | 8 | Motor Speed Control | 1.29 |
| LM1303N | 14 | Stereo Pre-Amp | 1.95 |
| LM1304N | 14 | FM Multiplex Stereo Demodulator | 1.19 |
| LM1305N | 14 | FM Multiplex Stereo Demodulator | 1.19 |
| LM1307N | 14 | FM Multiplex Stereo Demodulator | .79 |
| LM1310N | 14 | Stereo Demodulator (ULN2110) | 1.49 |
| MC1330A1 | 8 | Low Level Video Detector | 1.69 |
| MC1349 | 8 | Video IF Amp (15V) | 1.69 |
| MC1350 | 8 | Video IF Amp (12V) | 1.19 |
| MC1358 | 14 | TV Sound IF Amp | 1.49 |
| LM1456V | 8 | Op Amp Hi-Performance (N5556) | 1.95 |
| LM1458N | 8 | Dual Comp. Op Amp (MC5558V/RC4558) | .59 |
| LM1458H | TO-5/8 | Dual Comp. Op Amp (MC5558H/RC4558T) | 1.19 |
| MC1463R | TO-66/9 | .5A Adj. Neg. Volt Reg. (-9V to -35V) | 7.95 |
| MC1469R | TO-66/9 | .5A Adj. Monolithic Volt Reg. (2.5V-37V) | 5.95 |
| LM1488N | 14 | Quad Line Driver (75188) RS232 | .69 |
| LM1489N | 14 | Quad Line Receiver (75189) RS232 | .69 |
| LM1496N | 14 | Balanced Mod/Demodulator | .99 |
| LM1496H | TO-5/10 | Balanced Modulator/Demodulator | 2.19 |
| LM1605CK | TO-3/8 | 5A Hi. Eff. Switching Reg. (Adj. 3-30V) | 9.95 |
| MC1741SCG | TO-5/8 | High Slew Op Amp | 1.95 |
| LM1800N | 16 | PLL Stereo Decoder (UA758/ULN2244) | 2.49 |
| LM1818N | 14 | Elec. Switched Cassette I.C. | 1.95 |
| LM1871N | 18 | Radio Control Encoder/Transmitter | 2.95 |
| LM1872N | 18 | Radio Control Receiver/Decoder | 3.25 |
| LM1877N-9 | 14 | Dual Power Audio Amp | 2.95 |
| LM1889N | 18 | Video Modulator | 1.95 |
| LM1896N | 14 | Low Voltage Dual Audio Amp | 1.59 |
| LM2002T | TO-220/5 | 8-Watt Audio Power Amp | 1.95 |
| ULN2003A | 16 | Hi Volt. Hi Curr. Darlington Transistor Array | 1.49 |
| ULN2023 | 16 | 7-Channel, High Voltage & Amp Driver | 1.95 |
| ULN2064 | 16 | Peripheral Driver | 2.95 |
| ULN2074 | 16 | Peripheral Driver | 2.95 |
| DS26LS31CN | 16 | Quad Diff. Line Driver | 1.49 |
| DS26LS32CN | 16 | Quad Diff. Line Receiver | 1.49 |
| LM2877P | P11A | Dual Power Audio Amp (SIF) | 1.95 |
| LM2878P | P11A | Dual 6-Watt Audio Amp (SIF) | 2.95 |
| LM2901N | 14 | Quad Comparator (Low Power) MC3302P | .79 |
| LM2902N | 14 | Quad (Low Power) Comparator | .89 |
| LM2903N | 8 | Dual Comparator | .79 |
| LM2907N | 14 | Frequency to Voltage Converter | 2.49 |
| MPQ290T | 14 | Quad PNP Transistor | 1.29 |
| LM2917N | 8 | Freq. to Voltage Converter (CS2917) | 1.95 |
| LM3053H | TO-5/8 | Differential RF/IF Amplifier | .99 |
| MC3310P | 8 | FM-IF Wide Band Amp | .79 |
| MC3346P | 14 | Quad Bus Conceiver | 1.49 |
| MPQ3467 | 14 | Quad PNP Core Driver | 1.49 |

LINEAR (CONTINUED)

| Part No. | Pins | Function | Price | Part No. | Pins | Function | Price |
|----------|---------|--|--------|-----------|--------|--|--------|
| SG3526 | 18 | Regulating Pulse Width Modulator | \$6.95 | 7924K | TO-3 | 24V Neg. Volt Reg. (LM320K-24) 1 Amp | \$1.35 |
| DS3603N | 14 | Dual Tri-State Line Receiver | 2.95 | 7905T | TO-220 | 5V Neg. Volt Reg. (LM320T-5) 1 Amp | .85 |
| DS3679N | 16 | Hex Tri-State MOS Driver | 1.49 | 7906T | TO-220 | 6V Neg. Volt Reg. (LM320T-6) 1 Amp | .85 |
| LM3900N | 14 | Quad Amp | .59 | 7908T | TO-220 | 8V Neg. Volt Reg. (LM320T-8) 1 Amp | .85 |
| LM3905N | 8 | Precision Timer | 1.19 | 7912T | TO-220 | 12V Neg. Volt Reg. (LM320T-12) 1 Amp | .85 |
| LM3909N | 8 | LED Flasher | .89 | 7915T | TO-220 | 15V Neg. Volt Reg. (LM320T-15) 1 Amp | .85 |
| LM3914N | 18 | Bar-Graph Display Driver | 2.39 | 7918T | TO-220 | 18V Neg. Volt Reg. (LM320T-18) 1 Amp | .85 |
| LM3915N | 18 | 3 DB Steps Bar-Graph Display Driver | 2.39 | 7924T | TO-220 | 24V Neg. Volt Reg. (LM320T-24) 1 Amp | .85 |
| LM3916N | 18 | VU Meter Display Driver | 2.39 | 79L05AC | TO-92 | 5V Negative Voltage Regulator (100mA) | .59 |
| RC4136N | 14 | Quad Op Amp (XR4136) | 1.25 | 79L12AC | TO-92 | 12V Negative Voltage Regulator (100mA) | .59 |
| RC4151NB | 8 | Voltage to Freq. Converter (XR4151) | 1.95 | 79L15AC | TO-92 | 15V Negative Voltage Regulator (100mA) | .59 |
| XR4194N | 14 | Dual \pm 35V Tracking Volt Reg. | 2.95 | 79M05AH | TO-5/3 | 5V Negative Voltage Regulator (500mA) | 1.29 |
| RC4195TK | TO-66/9 | 15V Tracking Regulator | 5.95 | 79M05AU | TO-220 | 5V Negative Voltage Regulator (500mA) | .49 |
| LM4250CN | 8 | Programmable Op Amp | 1.49 | 8038CCPD | 14 | Precision Wave Form Generator | 3.95 |
| LM4500A | 16 | Hi-Fi FM Stereo Blend Demodulator | 2.95 | LM13080N | 8 | Programmable Power Op Amp | 1.19 |
| NE5532 | 8 | Dual Low-Noise Op Amp | 1.69 | LM13600N | 16 | Dual Transconductance Amp | 1.19 |
| NE5534 | 8 | Low Noise Op Amp | 1.39 | 75107N | 14 | Dual Line Receiver | 1.19 |
| NE5561N | 8 | Switched Mode Power Supply Controller | .89 | 75108N | 14 | Dual Line Receiver | 1.09 |
| DS7521N | 16 | Core Memory Sense Amp | .49 | 75109N | 14 | Dual Line Driver | 1.09 |
| DS7524N | 16 | Core Memory Sense Amp | .49 | 75110N | 14 | Dual Line Driver | 1.09 |
| DS7528N | 16 | Core Memory Sense Amp | .49 | 75123N | 16 | Dual Line Driver (N8T23) | 1.49 |
| DS7534N | 16 | Core Memory Sense Amp | .79 | 75124N | 16 | Triples Line Receiver (N8T24) | 1.19 |
| DS7535N | 16 | Core Memory Sense Amp | .49 | 75138N | 16 | Quad-Bus Transceiver | 2.95 |
| 7805K | TO-3 | 5V Pos. Volt Reg. (LM340K-5) 1 Amp | 1.35 | 75150CN | 8 | Dual Line Driver (RS232) | 1.29 |
| 7806K | TO-3 | 6V Pos. Volt Reg. (LM340K-6) 1 Amp | 1.35 | 75154N | 16 | Quad Line Receiver (9617) | 1.49 |
| 7812K | TO-3 | 12V Pos. Volt Reg. (LM340K-12) 1 Amp | 1.35 | 75234N | 16 | Dual Sense Amplifier | 1.19 |
| 7815K | TO-3 | 15V Pos. Volt Reg. (LM340K-15) 1 Amp | 1.35 | 75322N | 14 | Dual TTL to MOS Driver | 1.95 |
| 7818K | TO-3 | 18V Pos. Volt Reg. (LM340K-18) 1 Amp | 1.35 | 75368N | 14 | Dual MOS Driver | 3.95 |
| 7824K | TO-3 | 24V Pos. Volt Reg. (LM340K-24) 1 Amp | 1.35 | 75450N | 14 | Dual Peripheral Driver | .59 |
| 7805T | TO-220 | 5V Pos. Volt Reg. (LM340T-5) 1 Amp | .75 | 75451CN | 8 | Dual Peripheral Driver | .59 |
| 7806T | TO-220 | 6V Pos. Volt Reg. (LM340T-6) 1 Amp | .75 | 75452CN | 8 | Dual Peripheral Driver | .59 |
| 7808T | TO-220 | 8V Pos. Volt Reg. (LM340T-8) 1 Amp | .75 | 75452N-14 | 14 | Dual Peripheral Driver | .25 |
| 7812T | TO-220 | 12V Pos. Volt Reg. (LM340T-12) 1 Amp | .75 | 75453CN | 8 | Dual Peripheral Driver | .59 |
| 7815T | TO-220 | 15V Pos. Volt Reg. (LM340T-15) 1 Amp | .75 | 75453N-14 | 14 | Dual Peripheral Driver | .25 |
| 7818T | TO-220 | 18V Pos. Volt Reg. (LM340T-18) 1 Amp | .75 | 75454CN | 8 | Dual Peripheral Driver | .59 |
| 7824T | TO-220 | 24V Pos. Volt Reg. (LM340T-24) 1 Amp | .75 | 75454N-14 | 14 | Dual Peripheral Driver | .25 |
| 78L05AC | TO-92 | 5V Positive Voltage Regulator (100mA) | .39 | 75461N | 8 | Dual Peripheral Driver | .59 |
| 78L12AC | TO-92 | 12V Positive Voltage Regulator (100mA) | .39 | 75462N | 8 | Dual Peripheral Driver | .59 |
| 78L15AC | TO-92 | 15V Positive Voltage Regulator (100mA) | .39 | 75463N | 8 | Dual Peripheral Driver | .59 |
| 78340 | 16 | Switching Regulator 1.5A (1.3V-40V) | 3.19 | 75464H | TO-5/8 | Dual Peripheral Driver | .79 |
| 7905K | TO-3 | 5V Neg. Volt Reg. (LM320K-5) 1 Amp | 1.35 | 75491N | 14 | Quad Segment Driver for LED Readout | .79 |
| 7906K | TO-3 | 6V Neg. Volt Reg. (LM320K-6) 1 Amp | 1.35 | 75492N | 14 | Hex Digit Driver | .79 |
| 7908K | TO-3 | 8V Neg. Volt Reg. (LM320K-8) 1 Amp | 1.35 | 75493N | 16 | 4-Segment LED Driver | 1.25 |
| 7912K | TO-3 | 12V Neg. Volt Reg. (LM320K-12) 1 Amp | 1.35 | 75494N | 18 | 6-Segment LED Driver | 1.19 |
| 7915K | TO-3 | 15V Neg. Volt Reg. (LM320K-15) 1 Amp | 1.35 | 76002ND | 14 | 5 Watt Audio Power Amplifier | 1.95 |
| 7918K | TO-3 | 18V Neg. Volt Reg. (LM320K-18) 1 Amp | 1.35 | 76477 | 28 | Complex Sound Generator | 3.95 |
| | | | | 76489 | 16 | Sound Generator Controller | 9.95 |

EXAR LINEAR

| | | | | | | | |
|---------|----|-----------------------------------|--------|--------|----|------------------------------|--------|
| XR205 | 16 | Waveform Generator | \$4.95 | XR2212 | 16 | Precision Phase Locked Loop | \$4.79 |
| XR210 | 16 | FSK Demodulator | 2.95 | XR2216 | 16 | Monolithic Comander | 1.59 |
| XR215 | 16 | High-Frequency PLL | 2.35 | XR2240 | 16 | Programmable Counter/Timer | 1.29 |
| XR320 | 14 | Precision Timer | .89 | XR2242 | 8 | 555 Timer with 8-Bit Counter | 1.39 |
| XR-L555 | 8 | Micro-Power 555 Timer | .69 | XR2556 | 14 | Dual Timing Circuit | 1.09 |
| XR1468 | 14 | Dual \pm 15V Tracking Regulator | 1.95 | XR2567 | 16 | Dual 567 Decoder | 1.75 |
| XR2206 | 16 | Monolithic Function Generator | 3.95 | XR3403 | 14 | Quad Op Amp | .69 |
| XR2207 | 14 | Voltage-Controlled Oscillator | 2.49 | XR4136 | 14 | Quad Op Amp (RC4136N) | 1.25 |
| XR2208 | 16 | Operational Multiplier | 1.79 | XR4202 | 16 | Quad Programmable Op Amp | 1.19 |
| XR2209 | 8 | Precision Oscillator | 1.95 | XR4212 | 14 | Quad 741 | .99 |
| XR2211 | 14 | FSK Demodulator | 2.95 | XR4741 | 14 | Quad Op Amp (LM348N) | .99 |

RCA LINEAR SERIES

| | | | | | | | |
|---------|---------|---|--------|---------|--------|-----------------------------------|--------|
| CA3010H | TO-5/12 | 6 Volt Op Amp | \$1.09 | CA3096N | 16 | NPN/PNP Transistor Array | \$1.75 |
| CA3039H | TO-5/12 | Diode Array (UA3039) | 1.25 | CA3130E | 8 | Super CMOS Op Amp | 1.19 |
| CA3046N | 14 | Transistor Array (ULN2046) | .99 | CA3130T | TO-5/8 | Super CMOS Op Amp | 2.19 |
| CA3054N | 14 | Dual Independent Differential Amplifier | 1.09 | CA3140E | 8 | Bi-MOS Op Amp | .85 |
| CA3059E | 14 | Zero Voltage Switch | 2.95 | CA3140T | TO-5/8 | Bi-MOS Op Amp | 1.49 |
| CA3065E | 14 | TV-FM Sound System | 1.49 | CA3146E | 14 | High-Voltage Transistor Array | 1.29 |
| CA3080E | 8 | Operational Transconductance Amp | .99 | CA3160T | TO-5/8 | Bi-MOS Op Amp | 1.79 |
| CA3080H | TO-5/8 | Operational Transconductance Amp | 1.29 | CA3160E | 8 | Bi-MOS Op Amp | 1.49 |
| CA3081N | 16 | Common Emitter NPN Array (ULN2081) | 1.15 | CA3161E | 16 | BCD to 7-Segment Decoder Driver | 1.79 |
| CA3082N | 16 | Common Collector NPN Array (ULN2082) | 1.15 | CA3162E | 16 | Dual Slope and Rate Analog | |
| CA3083N | 16 | Transistor Array NPN (ULN2083) | 1.15 | | | to Digital Converter (BCD output) | 6.95 |
| CA3086N | 14 | Transistor Array NPN (ULN2086) | .85 | CA3189E | 16 | FM/IF System | 2.79 |
| CA3089N | 16 | FM/IF System (ULN2289) | 1.95 | CA3401N | 14 | Quad Amp (LM3900N) | .59 |



N8000 SERIES

| Part No. | Pins | Function | Price |
|----------|------|---|--------|
| N8200 | 24 | TTL Dual 5-Bit Buffer Register | \$2.95 |
| N8201 | 24 | Dual 5-Bit Buffer Register W/D Comp. | 2.95 |
| N8203 | 24 | 10-Bit Buffer Register W/D Comp. | 2.95 |
| N8223 | 16 | 256-Bit Bipolar Field Prog. ROM (32x8 PROM) | 2.95 |
| N8230 | 16 | 8-Bit Input Multiplexer (9312) | 1.65 |
| N8232 | 16 | 8-Bit Input Multiplexer | 1.65 |
| N8233 | 16 | 2-Input 4-Bit Digital Multiplexer | 1.95 |
| N8242 | 14 | Quad Exclusive-NOR Gate | 1.55 |
| N8250 | 14 | Binary-to-Octal Decoder | 2.00 |
| N8251 | 16 | BCD-to-Decimal Decoder | 2.00 |
| N8262 | 14 | 9-Bit Parity Generator/Checker | 3.50 |
| N8266 | 16 | 2-Input 4-Bit Multiplexer | 2.25 |
| N8267 | 16 | 2-Input 4-Bit Digital Multiplexer | 4.00 |
| N8269 | 14 | 4-Bit Comparator (DM8200) | 2.95 |
| N8270 | 14 | 4-Bit Shift Register (93178) | 1.45 |
| N8271 | 16 | 4-Bit Shift Register (93179) | 1.25 |
| N8273 | 16 | 10-Bit S-In P-Out Register | 3.25 |
| N8274 | 16 | 10-Bit P-In S-Out Register | 3.25 |
| N8275 | 16 | Quad Bistable Latch | 1.65 |
| N8277 | 16 | Dual 8-Bit Shift Register (9328) | 2.90 |
| N8290 | 14 | Hi-Speed Presettable Dec. Counter (74196) | .75 |
| N8291 | 14 | Hi-Speed Presettable Binary Counter (74197) | .75 |
| N8292 | 14 | Low Power Presettable Decade Counter | 2.40 |
| N8455 | 14 | Dual 4-Input NAND Gate Drive | 2.90 |
| N8471 | 14 | Triple 3-Input NAND Gate Open Collector | 1.75 |
| N8480 | 14 | Quad 2-Input NAND Gate | 1.75 |
| N8481 | 14 | Quad 2-Input NAND Gate Open Collector | 1.75 |
| N8731 | 14 | Quad 2-Input Diode Expander | 2.10 |
| N8806 | 14 | Dual 4-Input Expander | 1.05 |
| N8808 | 14 | 8-Input NAND Gate | .95 |
| N8815 | 14 | Dual 4-Input NOR Gate | 2.15 |
| N8826 | 14 | Dual High Speed JK Binary | 3.00 |
| N8828 | 14 | Dual High Speed "D" Binary | 2.25 |
| N8859 | 14 | Dual 4-Input NAND Buffer | 1.00 |
| N8875 | 14 | Triple 3-Input NOR Gate | .55 |
| N8879 | 14 | Triple 3-Input NAND Gate | 1.70 |
| N8881 | 14 | Quad 2-Input NAND Gate | 2.49 |
| N8885 | 14 | Quad 2-Input NOR Gate | 3.25 |
| N8889 | 14 | High Voltage Segment Driver | 1.00 |

SP SERIES

| | | | |
|-------|----|---------------------------------|------|
| SP301 | 14 | Quad 2-Input Expander | 1.50 |
| SP306 | 14 | Dual 3-Input AND Gate | 1.90 |
| SP314 | 14 | Single 7-Input NOR Gate | 1.75 |
| SP322 | 16 | Dual J-K Master/Slave Flip Flop | 4.20 |
| SP328 | 14 | Dual D-type Flip Flop | 3.45 |
| SP333 | 14 | Dual 3-Input OR Gate | 2.05 |
| SP337 | 14 | Dual 4-Input NAND Gate | 1.75 |
| SP358 | 14 | Quad 2-Input NAND Gate | 3.45 |
| SP380 | 14 | Quad 2-Input NOR Gate | 1.75 |
| SP629 | 14 | SR/T Flip Flop | 5.70 |
| SP631 | 14 | Quad 2-Input Expander | 2.55 |
| SP670 | 14 | Triple 3-Input NAND Gate | 3.20 |

N8H SERIES

| | | | |
|-------|----|------------------------|------|
| N8H16 | 14 | Dual 4-Input NAND Gate | 1.25 |
| N8H21 | 14 | Dual JK Binary Element | 1.25 |
| N8H22 | 16 | Dual JK Binary Element | 2.75 |
| N8H80 | 14 | Quad 2-Input NAND Gate | 1.25 |
| N8H90 | 14 | Hex Inverter | 1.25 |

N8T SERIES

| Part No. | Pins | Function | Price |
|----------|------|--|--------|
| N8T01 | 16 | Nixie Decoder/Driver | \$1.25 |
| N8T04 | 16 | 7-Segment Decoder/Driver | 2.25 |
| N8T10 | 16 | Tri-State Quad D Bus Flip Flop | 1.75 |
| N8T14 | 16 | Triple Line Receiver (75122) | 1.75 |
| N8T22 | 14 | Triggerable One-Shot (9601) | .75 |
| N8T23 | 16 | Dual Line Driver (75123) | 1.75 |
| N8T24 | 16 | Triple Line Receiver (75124) | 1.75 |
| N8T26 | 16 | Tri-State Quad Bus Transceiver (MC6880A) | 1.59 |
| N8T28 | 16 | Quad Tri-State Line Driver (MC6889) | 1.75 |
| N8T34 | 16 | Quad Tri-State Bus Transceiver (DM8834) | 2.50 |
| N8T39-00 | 28 | Bus Extender-Address Block | 6.95 |
| N8T80 | 14 | Quad 2-Input NAND Interface Gate | 1.75 |
| N8T95 | 16 | High Speed Hex Buffer Inverter | 1.65 |
| N8T97 | 16 | High Speed Tri-State Hex Buffer | 1.65 |
| N8T98 | 16 | High Speed Tri-State Hex Inverter | 1.65 |
| N8T380 | 14 | Quad Bus Receiver with Hysteresis (DM8836) | 1.10 |

N82S SERIES

| | | | |
|---------|----|--|-------|
| N82S10 | 16 | 1024x1 Bit RAM O.C. (93415) | 3.95 |
| N82S23 | 16 | 256-Bit PROM O.C. (6330) | 2.95 |
| N82S25 | 16 | 64-Bit RAM (16x4 O.C.) 74S289 (3101) | 2.25 |
| N82S62 | 14 | 9-Bit Parity Generator & Checker | 3.95 |
| N82S100 | 28 | Field Prog. Logic Array (16x48x8 T.S.) (93459) | 14.95 |
| N82S115 | 24 | 4096-Bit PROM (512x8 T.S.) 27S15 | 9.95 |
| N82S123 | 16 | 256-Bit PROM (32x8 T.S.) 74S288 | 2.95 |
| N82S126 | 16 | 1024-Bit PROM (256x4 O.C.) 74S387 | 2.95 |
| N82S129 | 16 | 1024-Bit PROM (256x4 T.S.) 74S287 | 2.95 |
| N82S130 | 16 | 2048-Bit PROM (512x4 O.C.) 74S570 | 3.95 |
| N82S131 | 16 | 2048-Bit PROM (512x4 T.S.) 74S571 | 3.95 |
| N82S137 | 18 | 4096-Bit PROM (1024x4 T.S.) 74S573 | 5.95 |
| N82S181 | 24 | 8192-Bit PROM (1024x8 T.S.) 87S181 | 9.95 |
| N82S185 | 18 | 8192-Bit PROM (2048x4 T.S.) 87S185 | 9.95 |
| N82S191 | 24 | 16,384-Bit PROM (2048x8 T.S.) 87S191 | 14.95 |

O.C.=Open Collector — T.S.=Tri-State

SHIFT REGISTERS

| | | | |
|----------|--------|---|------|
| MM500H | TO-5/8 | Dual 25-Bit Dynamic | .50 |
| MM503H | TO-5/8 | Dual 50-Bit Dynamic | .50 |
| MM5013N | 8 | 1024-Bit Dynamic/Accumulator | 1.95 |
| MM5016CN | 8 | 500/512-Bit Dynamic | 1.95 |
| MM5027N | 8 | 2048-Bit Dynamic | 2.95 |
| MM5035N | 20 | Octal 80-Bit | 5.95 |
| MM5056N | 10 | Dual 256-Bit Static | 2.95 |
| 2502B | 16 | 256-Bit Dynamic (MM1402N) | 1.95 |
| 2504V | 8 | 1024-Bit Dynamic (1404A) | .99 |
| 2522V | 8 | Dual 132-Bit Static | 1.95 |
| 2524V | 8 | 512-Bit Dynamic (AM2807) | .99 |
| 2525V | 8 | 1024-Bit Dynamic (AM2808) | .99 |
| 2528V | 8 | Dual 250-Bit Static | 2.95 |
| 2529V | 8 | Dual 240-Bit Static | 2.95 |
| 2532N | 16 | Quad 80-Bit Static | 2.95 |
| 3341PC | 16 | 64 Word x 4-Bit FIFO Serial Mem. (AM3341) | 6.95 |

DIODE TRANSISTOR LOGIC

| | | | |
|--------|----|-------------------------------|------|
| MC663P | 14 | Dual JK Flip Flop | 3.79 |
| MC667P | 14 | Dual Monostable Multivibrator | 3.79 |
| MC668P | 14 | Quad 2-Input NAND Gate | 2.29 |
| MC672P | 14 | Quad 2-Input NAND Gate | 2.29 |
| MC830P | 14 | Dual 4-Input Gate (DM930N) | .49 |
| MC832P | 14 | Dual 4-Input Buffer (DM932N) | .49 |
| MC833P | 14 | Gate Expander (DM933N) | .49 |
| MC835P | 14 | Hex Inverter | .59 |
| MC836P | 14 | Hex Inverter (DM936N) | .59 |
| MC838P | 14 | Decade Counter (DM938N) | 1.95 |
| MC841P | 14 | Hex Inverter (DM941N) | .59 |
| MC845P | 14 | Clock Flip Flop (DM945N) | .69 |
| MC846P | 14 | Quad 2-Input Gate (DM946N) | .59 |
| MC848P | 14 | Clock Flip Flop (DM948N) | .69 |
| MC849P | 14 | Quad 2-Input Gate (DM949N) | .59 |

DTL & HTL SERIES

| | | | |
|---------|----|-------------------------------------|------|
| MC851P | 14 | Monostable Multivibrator (SW951N) | 1.49 |
| MC853P | 14 | Dual JK Flip Flop (DM9033N) | .79 |
| MC855P | 14 | Quad JK Flip Flop (DM9097N) | .79 |
| MC856P | 14 | Dual JK Flip Flop (DM9094N) | .79 |
| MC857P | 14 | Quad Buffer (DM957N) | .59 |
| MC858P | 14 | Quad 2-Input NAND Gate | .79 |
| MC861P | 14 | Quad 4-Input NAND/NOR Gate (DM961N) | .59 |
| MC862P | 14 | Triple 3-Input Gate (DM962N) | .59 |
| MC863P | 14 | Triple 3-Input NAND Gate (DM963N) | .59 |
| MC1801P | 14 | Dual 5-1 NAND Gate | .79 |
| MC1808P | 14 | Quad 2-Input OR Gate | .79 |
| MC1810P | 14 | Quad 2-Input NOR Gate | .79 |
| MC1818P | 14 | Quad 2-Input NAND Gate (O.C.) | 1.29 |

HIGH-THRESHOLD LOGIC

NATIONAL 8000 SERIES

| Part No. | Pins | Function | Price |
|----------|------|--|--------|
| DM8000N | 14 | Dual TTL/MOS Translator | \$6.00 |
| DM8091N | 14 | Quad 2-Input NAND Buffer | .55 |
| DM8092N | 14 | Dual 5-Input NAND Gate | .55 |
| DM8093N | 14 | Tri-State Quad Buffer (74125) | .49 |
| DM8094N | 14 | Tri-State Quad Buffer (74126) | .49 |
| DM8095N | 16 | Tri-State Hex Buffer (74365) | .55 |
| DM8096N | 16 | Tri-State Hex Inverter (74366) | .55 |
| DM8097N | 16 | Tri-State Hex Buffer (74367) | .55 |
| DM8098N | 16 | Tri-State Hex Inverter (74368) | .55 |
| DM8123N | 16 | Tri-State Quad 2-Input Multiplexer | 1.49 |
| DM8131N | 16 | 6-Bit Comparator | 2.79 |
| DM8136N | 16 | 6-Bit Comparator | 2.79 |
| DM8160N | 16 | 6-Bit Comparator | 2.79 |
| DM8210N | 14 | 8-Channel Digital Switch | 1.95 |
| DM8211N | 16 | 8-Channel Digital Switch | 1.95 |
| DM8214N | 16 | Tri-State Dual 4/1 Multiplexer | 1.49 |
| DM8219N | 24 | Tri-State Version of 74150 | 2.49 |
| DM8220N | 14 | Parity Generator/Checker | 1.79 |
| DM8230N | 16 | Tri-State Demultiplexer | 1.95 |
| DM8300N | 16 | 4-Bit Shift Register (74195) 9300N | .69 |
| DM8520N | 16 | Modulo-N-Divider | 6.95 |
| DM8546N | 16 | Tri-State 8-Bit Universal I/O Shift Register | 4.95 |
| DM8553N | 16 | Tri-State 8-Bit Latch | 4.95 |
| DM8599N | 16 | Tri-State 64-Bit RAM (74189) | 1.95 |
| DM8601N | 14 | Retriggerable Mono. Multivibrator (9601N) | .75 |
| DM8602N | 16 | Dual One-Shot (9602N) | 1.50 |
| DM8613N | 16 | Quad Gated Flip-Flops | 1.75 |
| DS8626N | 8 | 120MHz Divide-by-40 Prescaler | 4.95 |
| DS8629N | 8 | 120MHz Divide-by-100 Prescaler | 4.95 |
| DS8640N | 14 | Quad 2-in. Rec./No Hysteresis (SP380A) | .89 |
| DS8664N | 24 | 14-Digit Decoder/Driver/Low Batt. Indicator | 5.95 |
| DS8665N | 24 | 4-Digit Decoder/Driver (High Drive) | 4.95 |

| Part No. | Pins | Function | Price |
|----------|------|--|--------|
| DS8666N | 24 | 14-Digit Decoder/Driver (POS Systems) | \$4.95 |
| DM8681N | 14 | Presetable Binary Counter | 1.29 |
| DS8810N | 14 | Quad 2-Input TTL-MOS Interface Gate (7426) | .69 |
| DS8811N | 14 | Quad 2-Input TTL-MOS Interface Gate | .69 |
| DS8812N | 14 | TTL-MOS Hex Inverter | .99 |
| DS8819N | 14 | Quad 2-Input TTL-MOS-Gate | 1.19 |
| DS8820N | 14 | Dual Line Receiver (75182) | 1.49 |
| DS8830N | 14 | Dual Differential Line Driver (75183) | 1.49 |
| DS8832N | 16 | Tri-State Line Driver | 2.49 |
| DS8833N | 16 | Tri-State Quad Transceiver (Non-Inverting) | 2.25 |
| DS8834N | 16 | Quad Tri-State Transceiver (N8T34) | 2.50 |
| DS8835N | 16 | Quad Tri-State Transceiver (Inverting) | 2.25 |
| DS8836N | 14 | Quad NOR Unified Bus Receiver (N8T380) | 1.10 |
| DS8837N | 16 | Hex Unified Bus Receiver (N8T37) | 1.95 |
| DS8838N | 16 | Quad Unified Bus Transceiver (N8T38) | 1.50 |
| DS8856N | 16 | BCD to 7-Segment LED Driver (N8T51) | 2.95 |
| DS8861N | 18 | 5-Segment MOS to LED Driver | 1.95 |
| DS8864N | 22 | 9-Digit MOS to LED Cathode Driver | 2.00 |
| DS8865N | 18 | 8-Digit MOS to LED Cathode Driver | 1.00 |
| DS8867N | 18 | 8-Seg. MOS to LED Anode Driver | 1.95 |
| DS8868N | 18 | 12-Digit Decoder/Driver | 3.95 |
| DS8869N | 16 | Hex LED Lamp Driver (True) | 1.90 |
| DS8871N | 18 | 8-Digit MOS to LED Cathode Driver | 1.95 |
| DS8872N | 22 | 9-Digit MOS to LED Cathode Driver | 1.95 |
| DS8873N | 22 | 9-Digit LED Driver, Low Batt. Ind. (Cathode) | 2.49 |
| DS8880N | 16 | High Volt 7-Segment Decoder/Driver (75480) | 1.35 |
| DS8884N | 18 | High Volt 7-Seg. Decoder/Driver (Panaplex) | 2.49 |
| DS8887N | 18 | 8-In 8-Out Panaplex Anode Driver | 1.95 |
| DS8889N | 18 | 8-In 8-Out Panaplex Cathode Driver | 1.95 |
| DS8890N | 14 | TV Vert. Count Down | .75 |
| DS8895N | 16 | Quad LED Segment Driver | 1.49 |

FAIRCHILD 9000 SERIES

| | | | |
|-------|----|---|--------|
| 9000 | 14 | JK Master/Slave Flip-Flop (74104) | \$4.40 |
| 9003 | 14 | Triple 3-Input NAND Gate | .39 |
| 9004 | 14 | Dual 4-Input NAND Gate | .39 |
| 9006 | 14 | Dual 4-Input Expander | .39 |
| 9024 | 16 | Dual JK Flip-Flop (74109) | .39 |
| 9300 | 16 | 4-Bit Shift Register (74195) | .69 |
| 93L00 | 16 | 4-Bit Shift Register (74L195) Low Power | .79 |
| 9301 | 16 | 1 of 10 Decoder (DM8301N) | .75 |
| 93L01 | 16 | 1 of 10 Decoder (Low Power) | .75 |
| 9304 | 16 | Dual Full Adder | 1.00 |
| 93L10 | 16 | BCD Decade Counter (Low Power) | .75 |
| 9312 | 16 | 8-Input Multiplexer (DM8312N) | .69 |
| 93L12 | 16 | 8-Input Multiplexer (Low Power) | 1.95 |
| 9314 | 16 | 4-Bit Latch | 1.95 |
| 93L14 | 16 | 4-Bit Latch (Low Power) | 1.95 |
| 9316 | 16 | 4-Bit Binary Counter (74161) | 1.00 |
| 93L16 | 16 | 4-Bit Binary Counter (Low Power) | 1.25 |
| 93S16 | 16 | 4-Bit Binary Counter (Schottky) | 1.29 |
| 9321 | 16 | Dual 1 of 4 Decoder | .99 |

| | | | |
|--------|----|---|--------|
| 93L21 | 16 | Dual 1 of 4 Decoder (Low Power) | \$9.99 |
| 9322 | 16 | Quad 2/1 Data Selector (74157) | .89 |
| 93L23 | 16 | Quad 2-Input Multiplexer (Low Power) 81L23 | 2.95 |
| 9324 | 16 | 5-Bit Comparator | 2.95 |
| 93L24 | 16 | 5-Bit Comparator (Low Power) | 2.95 |
| 9328 | 16 | Dual 8-Bit Shift Register (N8277) | 1.50 |
| 9334 | 16 | 8-Bit Addressable Latch (74259) | 2.49 |
| 9368 | 16 | FND 70 Driver/Latch | 3.19 |
| 9374 | 16 | LED Digital Driver | 3.19 |
| 9401 | 14 | TTL/LSI Cycle Redundancy Check (MC8503) | 9.95 |
| 9601 | 14 | Retriggerable Monostable Multivibrator (8601) | .75 |
| 9602 | 16 | Dual Monostable Multivibrator (8602) | 1.50 |
| 96L02 | 16 | Dual Monostable Multivibrator (Low Power) | 1.75 |
| 96S02 | 16 | Dual Monostable Multivibrator (Schottky) | 2.49 |
| 96LS02 | 16 | Dual Mono. Multivibrator (Low Power-Schottky) | 2.49 |
| 93S151 | 16 | 8-Input Multiplexer | .99 |
| 93S158 | 16 | Quad 2-Input Multiplexer (Inverter) | .99 |
| 93L421 | 16 | 256-Bit Tri-State RAM (Low Power) O.C. | 6.95 |
| 93451 | 24 | 1024x8-Bit PROM (Tri-State) DM87S181N | 9.95 |



DT1050 Digitalker™

Applications: Teaching Aids • Appliances • Clocks • Automotive Telecommunications • Language Translations, etc.

The DT1050 is a standard DIGITALTALKER kit encoded with 137 separate & useful words, 2 tones, & 5 different silence durations. The words & tones have been assigned discrete addresses, making it possible to output single words or words concatenated into phrases or sentences. The "voice" output is a highly intelligible male voice. Female & children's voices can be synthesized. Vocabulary is chosen so that it is applicable to many products & markets.

The DT1050 consists of a Speech Processor Chip, MM54104 (40-pin) and two (2) Speech ROMs MM52164SSR1 and MM52164SSR2 (24-pin) along with a Master Word List and a recommended schematic diagram on the application sheet.

| | | |
|---------|--|---------|
| DT1050 | Digitalker™ (3 Chips & Data). | \$34.95 |
| MM54104 | Speech Processor Chip. | 14.95 |
| CY4A | Required 4MHz Crystal for System Timing. | 1.59 |

DT1057 - Expands the DT1050 vocabulary from 137 to over 260 words. Includes 2 ROMs and specs.

DT1057\$24.95

RADIO CONTROL CIRCUITS

Ideal to use for:

- Toys, hobby crafts, robots, trains
- Burglar alarms
- IR data link
- Remote slide projector control
- Consumer remote data links
- Energy-savings, remotely switched lighting systems



A complete 6-channel digital encoder and RF transmitter; low power, at frequency of 27MHz or 49MHz, a field strength of 10,000uV meter at 3 meters. 9V operation on chip RF oscillator/transmitter, on chip 4.6V regulator. Up to 80MHz carrier frequency operation.

LM1871N RC Encoder/Transmitter Chip\$2.95

A complete RF receiver/decoder, used at either 27MHz, 49MHz or 72MHz. It provides 4 independent channels when used with LM1871 (2 analog, 2 dig.) operates from four 1.5V cells. Crystal controlled.

LM1872N RC Receiver/Decoder Chip\$3.25

SRX1504 49.435MHz Crystal (LM1872N)\$3.95

SRX1505 49.890MHz Crystal (LM1871N)\$3.95

RAMS, PROMS and EPROMS CROSS-REFERENCE GUIDE

| | National Semiconductor | Access Time NS | Pins | Org | AMD | FSC | FUJ | HAR | HIT | INT | MOSTEK | MOT | MMI | NEC | SIG | SYN | TI | TOSH | INTERSIL | |
|--------------|------------------------|----------------|--------|----------|-----------|-----------|-------------|----------|-------------|-----------|------------|------------|---------|------------|----------|-----------|-------------|-------------|-----------|------|
| STATIC RAMS | MM1101N | 1000 | 16 | 256x1 | 1101A | | | | | 1101A | MK4007 | | | | 2501 | | | | 7501 | |
| | MM2101A | 350 | 22 | 256x4 | 2101A | 3538 | | HM6501 | | P2101A | | | | UPD2101A | 2101A | SY2101 | | | 7101 | |
| | MM2101A-2 | 250 | 22 | 256x4 | 2101-1 | | | | | P2101A-2 | | | | UPD2101AL | 2101A-2 | | | | | |
| | MM2101A-4 | 450 | 22 | 256x4 | 2101-2 | 3538-1 | MB8101 | | | P2101A-4 | | | | 8101 | 2101A-4 | | | | | |
| | MM2102AN | 350 | 16 | 1024x1 | 9102CPC | 2102 | | | | P2102A | | | | UPD2102A | 21F02 | SY2102A | | | | |
| | MM2102AN-2 | 250 | 16 | 1024x1 | 9102DPC | 21L02HPC | | | | P2102A-2 | | | | | 21F02-2 | | | | | |
| | MM2102AN-4 | 450 | 16 | 1024x1 | 9102BPC | 21L02IPC | | | | P2102A-4 | MK4102 | | | UPD2102 | 21F02-4 | | TMS4033 | TM313 | TM7552 | |
| | MM2102AN-L | 350 | 16 | 1024x1 | 91L02CPC | 2102L.FPC | | | | P2102AL | | | | | 21L02 | | | | | |
| | MM2102AN-2L | 250 | 16 | 1024x1 | 91L02APC | 2102-1 | | | | P2102AL-2 | | | | | | | | | | |
| | MM2102AN-4L | 450 | 16 | 1024x1 | 91L02BPC | 2102LIPC | | | | P2102AL-4 | | | | | | | | | | |
| | MM2111N | 450 | 18 | 256x4 | 9111 | | MB8111 | | | P2111A-4 | | M6811 | | UPD2111A | 2111 | SY2111 | TMS4042-2 | TM311 | 7111 | |
| | MM2112N | 450 | 16 | 256x4 | 9112 | | | | | P2112A-4 | | | | | 2112 | SY2112 | TMS4043-2 | TM312 | | |
| | MM2114N | 450 | 18 | 1024x4 | 9114BPC | 2114 | | | HM472114A-4 | P2114 | MK4114-5 | MCM2114P45 | | UPD2114 | 2614-45 | SY2114 | TMS4045-45 | TM314A | 82114 | |
| | MM2114N-2 | 200 | 18 | 1024x4 | 9114EPC | 2114-2 | MB8114E | | | P2114A-4 | MK4414-3 | MCM2114P20 | | 2114-2 | 2614-20 | SY2114-2 | TMS4045-20 | TM314A-1 | 82114-2 | |
| | MM2114N-L | 450 | 18 | 1024x4 | 91L14BPC | 2114L | | | HM472114A-2 | P2114L | | MCM2114P45 | | UPD2114L | | | TMS40L45-45 | TM314AL | 82114L | |
| | MM2114N-2L | 200 | 18 | 1024x4 | 91L14EPC | 2114L-2 | MB8114EL | HM514-9 | | P2114AL-4 | | MCM2114P20 | | UPD2114L-3 | | SY2114L-2 | TMS40L45-20 | TM314AL-1 | 82114L-2 | |
| | MM2141N-3 | 150 | 18 | 4096x1 | | | | | | P2141-3 | | | | | | | | | | |
| | MM2147N | 70 | 18 | 4096x1 | 9147-70 | | MBM2147E | | HM4847 | P2147H | MK2147N-70 | M2147P70 | | UPD214702 | | SY2147 | TMS2147-7 | TM3150 | 2147 | |
| | NMC2148N | 70 | 18 | 1024x4 | 9148-70 | 93475 | MBM2148 | | HM6148 | P2148H | | | | | | SY2148 | | | | |
| | NM5257N | 450 | 18 | 4096x1 | 4044-45 | | | | | P2141 | | M2141P45 | | UPD4104 | 2613-45 | | | | | |
| DYNAMIC RAMS | *HM6116P-2 | 120 | 24 | 2048x8 | | | MB8416A-12 | HM65162 | | | | | | | | | | | | |
| | *HM6116LP-2 | 120 | 24 | 2048x8 | | | MB8416A-12L | | | | | | | | | | | | | |
| | *HM6116P-3 | 150 | 24 | 2048x8 | | | MB8416A-15 | | | | | | | | | | | | | |
| | *HM6116LP-3 | 150 | 24 | 2048x8 | | | MB8416A-15L | | | | | | | | | | | | | |
| | *HM6116P-4 | 200 | 24 | 2048x8 | | F3528 | MB8416 | HM6116 | | | | | | UPD446 | | SY2128 | TMS4016 | TC5517A | | |
| | DM7489N | 60 | 16 | 16x4 | 3101 | 7489 | | | HD7489 | P3101 | | | 6550 | UPB2089 | 74589 | | 7489 | | 5501 | |
| | MM74C920 | 250 | 22 | 256x4 | 5101 | | | HM6551-9 | HM435101 | P5101L | | | | UPD5010 | | | | TC5101 | 6551DP | |
| | MM74C930 | 250 | 18 | 1024x1 | | | MB8411 | HM6515-5 | | | | | | | | | | | 6518CDN | |
| | DM74S189N | 35 | 16 | 16x4 | 27503 | 93405 | | | 74S189 | | | | 6561 | | 74S189 | | 74S189 | | | |
| | DM74S289N | 35 | 16 | 16x4 | 27502 | 93404 | | | 74S289 | 3101A | | | 6560 | UPB2289 | 82525 | | 74S289 | | | |
| | MM5210N | 250 | 18 | 4096x1 | 9050 | | | | | | | | | 2170 | UPD418-1 | 2660 | SY5270 | TMS4050 | 7270-11 | |
| | MM5281N | 300 | 18 | 1024x1 | | F1103 | | | | P1103 | | | | | | 1103-1 | | | | |
| | MM5282N | 200 | 22 | 4096x1 | 9060 | 93454 | MB8107H | | | P2107B | | MM605AL | 2180 | UPD411A-2 | 2680 | SY5280 | TMS4060-2 | | 7280 | |
| | MM5290N-2 | 150 | 16 | 16.384x1 | AM9016FPC | F16K-2PC | MB8116H | | HM4716A-2 | P2117-2 | MK4116N-2 | M4116P-15 | | UPD416C-3 | 2690-2 | | TMS4116N-15 | TMM416P-2 | 7116CPE-2 | |
| | MM5290N-3 | 200 | 16 | 16.384x1 | 9016EPC | F16K-3PC | MB8116E | | HM4716A-3 | P2117-3 | MK4116N-3 | M4116P-20 | | UPD416C-2 | 2690-3 | | TMS4116N-20 | TMM416P-3 | 7116CPE-3 | |
| | MM5290N-4 | 250 | 16 | 16.384x1 | 9016DPC | F16K-4PC | MB8116N | | HM4716A-4 | P2117-4 | MK4116N-4 | M4116P-25 | | UPD416C-1 | 2690-4 | | TMS4116N-25 | TMM416P-4 | 7116CPE-4 | |
| | MM5298N | 200 | 16 | 8192x1 | | | | | | P2109 | | MK4108 | | | | | | TMS4108-20 | | |
| | NMC4164-15 | 150 | 16 | 65.536x1 | | F64K-15 | MB8264-15 | | HM4864-2 | P2164A-15 | MK4564-15 | MCM6665-15 | | UPD4164-3 | | | TMS4164-15 | TMM4164 | | |
| | NMC4164N-20 | 200 | 16 | 65.536x1 | | F64K-20 | MB8264-20N | | HM4864-3 | P2164A-20 | MK4564-20 | MCM6665-20 | | UPD4164-2 | | | TMS4164-20 | TMM4164C-4 | | |
| | MM1702A | 850 | 24 | 256x8 | 1702A | | | | | 1702A | MK3702 | | | | | 1702 | | | | |
| EPROMS | MM2708C | 450 | 24 | 1024x8 | AM2708 | F2708 | MB8518H | | HN462708 | D2708 | MCM2708 | 2708 | | UPD2708 | 2708 | | TMS2708-45 | TMM332 | IM7708 | |
| | MM2716C | 450 | 24 | 2048x8 | AM2716 | F2716 | MBM2716 | | HN462716 | D2716 | MCM2716-8 | | | UPD2716 | | SY2716 | TMS2516 | TMM332D | | |
| | MM2716-1 | 350 | 24 | 2048x8 | AM2716-1 | F2716-1 | MBM2716H | HM6716-9 | | 2716-1 | MK2716-6 | MCM2716-35 | | | | SY2716-1 | TMS2516-35 | TMM332D-1 | | |
| | NMC2532Q | 450 | 24 | 4096x8 | | | | | HN462532 | | | | | | | | | | | |
| | NMC2732Q | 450 | 24 | 4096x8 | AM2732 | | MB8532 | | HN462732 | D2732 | | | | UPD2732 | | | | TM2732 | | |
| | 2732A-4 | 450 | 24 | 4096x8 | | | | | | 2732A-4 | | | | | | | | | | |
| | 2732A-3 | 300 | 24 | 4096x8 | | | HBM2732A-30 | | | 2732A-30 | | | | | | | | | | |
| | 2764-4 | 450 | 28 | 8192x8 | AM2764-4 | | | | | 2764-4 | MK2764 | | | | | | | TMS2764 | | |
| | 2764-30 | 300 | 28 | 8192x8 | | | MBM2764-30 | | | 2764-3 | | | | | | | | | | |
| | DM74S188N | 35 | 16 | 32x8 | 27518 | | MB7056 | HM7602 | | | | | | 6330-1 | | 82523 | | TBP185A030N | | 5600 |
| DM74S287N | 50 | 16 | 256x4 | 27521 | 93427 | MB7052 | HM7611 | | 3621 | | | | 6301-1 | | 825129 | | TBP24510 | | 5623 | |
| DM74S288N | 35 | 16 | 32x8 | 27519 | | MB7051 | HM7603 | | | | | | 6331-1 | | 825123 | | TBP185030N | | 5810 | |
| DM74S367N | 50 | 16 | 256x4 | 27520 | 93417 | MB7057 | HM7610 | | 3601-1 | MK4006 | | | 6300-1 | UPB403 | 825126 | | TBP245A10 | | 5603 | |
| DM74S471N | 50 | 20 | 256x8 | | | | | | | | | | 6309-1 | | | | TBP26-22N | | | |
| DM74S472N | 60 | 20 | 512x8 | 27529 | | | HM7649 | | | | | | 6349-1 | UPB425 | 825147 | | TBP26S42N | | | |
| DM74S473N | 60 | 20 | 512x8 | 27528 | | | HM7648 | | | | | | 6348-1 | UPB405 | 825146 | | TBP26S442 | | | |
| DM74S474N | 65 | 24 | 512x8 | 27531 | 93448 | | HM7641 | | 3624 | 7641 | | | 6341-1 | UPB425 | 825141 | | TBP16S46 | | 5625 | |
| DM74S475N | 65 | 24 | 512x8 | 27530 | 93438 | | HM7640 | | 3604 | 7640 | | | 6340 | UPB405 | 825140 | | TBP26S446 | | 5605 | |
| DM74S570N | 55 | 16 | 512x4 | 27512 | 93436 | MB7058 | HM7620 | | 3602 | 7620 | | | 6305-1 | | 825130 | | 745270 | | 5604 | |
| DM74S571N | 55 | 16 | 512x4 | 27513 | 93446 | MB7053 | HM7621 | | 3622 | 7621 | | | 6306-1 | | 825131 | | 745370 | | 5624 | |
| DM74S572N | 60 | 18 | 1024x4 | 27532 | 93450 | MB7059 | HM7642 | | 3605 | 7642 | | | 6352-1 | UPB406 | 825136 | | 245A41 | | 5606 | |
| DM74S573N | 60 | 18 | 1024x4 | 27533 | 93453 | MB7122 | HM7643 | | 3625 | 7643 | | | 6353-1 | UPB426 | 825137 | | 245A1 | | 5626 | |
| DM74S180N | 40 | 24 | 1024x8 | 275180 | 93450 | | HM7680 | | 3608 | 7680 | | | 6380-1 | UPB408 | 825180 | | 285A86 | | 56508 | |
| DM74S181N | 40 | 24 | 1024x8 | 275181 | 93451 | MB7132 | HM7681 | | 3628 | 7681 | | | 6381-1 | UPB428 | 825181 | | 245B6 | | 56518 | |
| DM74S184N | 40 | 18 | 2048x4 | 275184 | 93514 | | HM7684 | | | 7684 | | | 635840 | | 825184 | | 245A81 | | | |
| DM74S185N | 40 | 18 | 2048x4 | 275185 | 93515 | MB7128 | HM7685 | | | 7685 | | | 635841 | | 825185 | | 245B1 | | | |
| DM74S190N | 40 | 24 | 2048x8 | 275190 | | | HM76160 | | 3606 | | | | 6351680 | | 825190 | | 285A166 | | | |
| DM74S191N | 40 | 24 | 2048x8 | 275191 | | | HM76161 | | 3636 | | | | 6351681 | | 825191 | | 285166 | | | |
| | 60 | 24 | 512x8 | 27515 | | | HM7647R | | | | | | | UPB425 | 825115 | | | | | |

*NOT A NSC PART NUMBER

This listing is based on manufacturer's current data. For your requirements, we recommend consulting manufacturer's Data Sheets before designing into your circuit.

RAMS, PROMS and EPROMS CROSS-REFERENCE GUIDE

MEMORIES AND EXPANSION KITS

STATIC RAMS

| Part No. | Pins | Function | Price |
|-------------|------|---------------------------------------|-----------------|
| 2101 | 22 | 256x4 Static 450ns (8101) | \$1.95 |
| 2102 | 16 | 1024x1 Static 350ns | .89 |
| 2102-2L | 16 | 1024x1 Static 250ns Low Power (91L02) | 1.49 |
| 2111 | 18 | 256x4 Static 450ns (8111) | 2.49 |
| 2112 | 16 | 256x4 Static 450ns MOS | 2.49 |
| 2114N | 18 | 1024x4 Static 450ns (TMS4045-45) | 1.29ea. 8/9.95 |
| 2114N-2 | 18 | 1024x4 Static 200ns | 1.39ea. 8/10.95 |
| 2114N-L | 18 | 1024x4 Static 450ns Low Power | 1.65ea. 8/12.95 |
| 2114N-2L | 18 | 1024x4 Static 200ns Low Power | 1.69ea. 8/13.49 |
| 2116N-25L | 24 | 2048x8 Static 250ns LP NMOS | 6.95 |
| 2147HN | 18 | 4096x1 Static 70ns | 4.49 |
| 2147HN-3 | 18 | 4096x1 Static 55ns | 4.95 |
| 2148HN | 18 | 1024x4 Static 70ns | 4.95 |
| 2148HN-3 | 18 | 1024x4 Static 55ns | 5.49 |
| 27LS00 | 16 | 256x1 Static 80ns (74S200) | 3.95 |
| TMS40L47-45 | 20 | 1024x4 Static 450ns | 1.95 |
| 5101 | 22 | 256x4 Static 450ns (CMOS) | 3.95 |
| MM5257N | 18 | 4096x1 Static 450ns (TMS4044-45) | 4.95 |
| HM6116P-2 | 24 | 2048x8 Static 120ns (16K) CMOS | 7.95 |
| HM6116P-3 | 24 | 2048x8 Static 150ns (16K) CMOS | 4.95 |
| HM6116P-4 | 24 | 2048x8 Static 200ns (16K) CMOS | 4.75 |
| HM6116LP-2 | 24 | 2048x8 Static 120ns (16K) LP CMOS | 8.95 |
| HM6116LP-3 | 24 | 2048x8 Static 150ns (16K) LP CMOS | 6.49 |
| HM6116LP-4 | 24 | 2048x8 Static 200ns (16K) LP CMOS | 5.49 |
| HM6264P-12 | 28 | 8192x8 Static 120ns (64K) CMOS | 37.95 |
| HM6264P-15 | 28 | 8192x8 Static 150ns (64K) CMOS | 34.95 |
| HM6264LP-12 | 28 | 8192x8 Static 120ns (64K) LP CMOS | 39.95 |
| HM6264LP-15 | 28 | 8192x8 Static 150ns (64K) LP CMOS | 37.95 |
| 7489 | 16 | 16x4 Static 50ns (P3101) | 2.25 |
| 74C920 | 22 | 256x4 Static 250ns (6551-9) | 5.95 |
| 74C921 | 18 | 256x4 Static 250ns | 5.95 |
| 74C930 | 18 | 1024x1 Static 250ns (6518-5) | 5.95 |
| 74S189 | 16 | 16x4 Static 35ns (93405) | 2.95 |
| 74S289 | 16 | 16x4 Static 35ns (P3101A) | 2.95 |
| 82S10 | 16 | 1024x1 Static 50ns O.C. (93415) | 3.95 |
| 82S25 | 16 | 16x4 Static 50ns O.C. (74S289) | 2.25 |

DYNAMIC RAMS

| | | | |
|------------|----|--|-----------------|
| 1103 | 18 | 1024x1 Dynamic 300ns | \$9.99 |
| MK4027N-4 | 16 | 4096x1 Dynamic 250ns (UPD414) | 1.49 |
| 4116N-12 | 16 | 16,384x1 Dyn. 120ns (MM5290N-1) | 1.65ea. 8/12.95 |
| 4116N-15 | 16 | 16,384x1 Dyn. 150ns (MM5290N-2) | 1.39ea. 8/10.95 |
| 4116N-20 | 16 | 16,384x1 Dyn. 200ns (MM5290N-3) | 1.15ea. 8/8.95 |
| 4116N-25 | 16 | 16,384x1 Dynamic 250ns (MM5290N-4) | 89ea. 8/6.95 |
| 4164N-150 | 16 | 65,536x1 Dynamic 150ns | 5.19ea. 8/40.95 |
| 4164N-200 | 16 | 65,536x1 Dynamic 200ns | 4.95ea. 8/38.95 |
| MM5261N | 18 | 1024x1 Dynamic 300ns | .35ea. 8/1.95 |
| MM5262N | 22 | 2048x1 Dynamic 365ns | .35ea. 8/1.95 |
| MM5270N | 18 | 4096x1 Dynamic 250ns | 4.95 |
| MM5280N | 22 | 4096x1 Dynamic 200ns (P2107B) TMS 4060 | 3.95 |
| MM5298N-3A | 16 | 8192x1 Dynamic (Lower 1/2 of 4116N-4) | .59 |
| 41256-150 | 16 | 262,144x1 Dynamic 150ns | 34.95 |
| 41256-200 | 16 | 262,144x1 Dynamic 200ns | 31.95 |

EPROMS

| Part No. | Pins | Function | Price |
|-----------|------|--|--------|
| 1702A | 24 | 256x8 2K UV EPROM (1μs) | \$3.95 |
| TMS2516 | 24 | 2048x8 16K EPROM 450ns (25V) 2716 | 4.95 |
| TMS2532 | 24 | 4096x8 32K EPROM 450ns (25V) 2732 | 5.49 |
| TMS2564 | 28 | 8192x8 64K EPROM 450ns (25V) 2764 | 10.95 |
| 2708 | 24 | 1024x8 8K EPROM 450ns | 3.95 |
| 2708Q-5 | 24 | 1024x8 8K EPROM 550ns | 3.49 |
| TMS2716 | 24 | 2048x8 16K EPROM 450ns (-5V, +5, +12V) | 7.95 |
| 2716 | 24 | 2048x8 16K EPROM 450ns (25V) | 3.95 |
| 2716-1 | 24 | 2048x8 16K EPROM 350ns (25V) | 5.49 |
| 2716Q-5 | 24 | 2048x8 16K EPROM 550ns (25V) | 3.75 |
| 27C16 | 24 | 2048x8 16K EPROM 450ns (25V) CMOS | 14.95 |
| 2732 | 24 | 4096x8 32K EPROM 450ns (25V) | 4.95 |
| 2732-20 | 24 | 4096x8 32K EPROM 200ns (25V) | 10.95 |
| 2732A-20 | 24 | 4096x8 32K EPROM 200ns (21V) | 11.49 |
| 2732A-25 | 24 | 4096x8 32K EPROM 250ns (21V) | 7.19 |
| 2732A-45 | 24 | 4096x8 32K EPROM 450ns (21V) | 6.49 |
| 27C32 | 24 | 4096x8 32K EPROM 450ns (25V) CMOS | 19.95 |
| 27C32A-30 | 24 | 4096x8 32K EPROM 300ns (21V) CMOS | 22.95 |
| 2764-20 | 28 | 8192x8 64K EPROM 200ns (21V) | 11.95 |
| 2764-25 | 28 | 8192x8 64K EPROM 250ns (21V) | 7.19 |
| 2764-45 | 28 | 8192x8 64K EPROM 450ns (21V) | 6.49 |
| 27C64 | 28 | 8192x8 64K EPROM 450ns (21V) CMOS | 22.95 |
| 27128-25 | 28 | 16,384x8 128K EPROM 250ns (21V) | 21.95 |
| 27256-25 | 28 | 32,768x8 256K EPROM 250ns (14V) | 99.95 |
| MM5204Q | 24 | 512x8 4K EPROM (1μs) | 4.95 |
| MCM68764C | 24 | 8192x8 64K EPROM 450ns (21V) | 24.95 |

Includes the popular verse
I'm a computer memory chip
Just a little brain
I do so many things for you
Too many to proclaim
Look through my window
See what makes me tick
A thousand tiny circuits
And my silicon chip!

**THE FAMOUS
SILICON CHIP**



Part No. MKC-1 Memory Key Chain (Gold). \$4.95ea. 10/\$39.95

PROMS

| | | | |
|-----------|----|---------------------------------------|--------|
| 74S188 | 16 | 32x8 PROM O.C. (6330-1)(TBP18SA030N) | \$1.75 |
| 74S287 | 16 | 256x4 PROM T.S. (6301-1)(TBP24S10N) | 1.79 |
| 74S288 | 16 | 32x8 PROM T.S. (6331-1)(TBP18S030N) | 1.79 |
| 74S387 | 16 | 256x4 PROM O.C. (6300-1)(TBP24SA10N) | 1.95 |
| 74S471 | 20 | 256x8 PROM T.S. (6309-1)(TBP28L22N) | 4.95 |
| 74S472 | 20 | 512x8 PROM T.S. High Speed (6349-1) | 4.95 |
| 74S473 | 20 | 512x8 PROM O.C. (6348)(TBP28SA42N) | 4.95 |
| 74S474 | 24 | 512x8 PROM T.S. (DM87S296N)(TBP18S46) | 4.95 |
| 74S475 | 24 | 512x8 PROM O.C. (6340) | 4.95 |
| 74S476 | 18 | 1024x4 PROM T.S. (TBP24S41) 4K-Bit | 6.95 |
| 74S478 | 24 | 1024x8 PROM T.S. (TBP28S86) | 9.95 |
| 74S570 | 16 | 512x4 PROM O.C. (6305) | 2.95 |
| 74S571 | 16 | 512x4 PROM T.S. (6306) | 2.95 |
| 74S572 | 18 | 1024x4 PROM O.C. (6352) | 4.95 |
| 74S573 | 18 | 1024x4 PROM T.S. (82S137) | 4.95 |
| DM87S181N | 24 | 1024x8 PROM T.S. (82S181) | 9.95 |
| DM87S184N | 18 | 2048x4 PROM O.C. (82S184) | 9.95 |
| DM87S185N | 18 | 2048x4 PROM T.S. (82S185) | 9.95 |
| DM87S191N | 24 | 2048x8 PROM T.S. (82S191) | 14.95 |

ROMS

| | | | |
|--------------|----|--|--------|
| 2513(CGR001) | 24 | Character Generator Upper Case (2140) | \$9.79 |
| 2513(CGR005) | 24 | Character Gen. Lower Case (3021) | 9.95 |
| MCM66710P | 24 | 128x9x7 ASCII Shifted w/Greek (MC6571) | 13.95 |
| MCM66750P | 24 | 128x9x7 Alpha. Control Char. Gen. (MC6575) | 12.95 |

COMPUTER MEMORY EXPANSION KITS

TRS-80 MODEL I, III

Each Kit comes complete with 8-MM5290 (UPD416/4116) 16K Dynamic RAMs and documentation for conversion. Model I: 16K equipped with Expansion Interface can be expanded to 48K with 2 Kits. Model III: Can be expanded from 16K to 48K using 2 Kits. Each Kit will expand computer by 16K increments.

| | |
|----------------------------|--------|
| TRS-16K3 200ns (Model III) | \$8.95 |
| TRS-16K4 250ns (Model I) | \$6.95 |

TRS-80 MODEL IV

Easy to install Kit comes complete with 8 each 4164N-20 (200ns) 64K Dynamic RAMs and conversion documentation.

| | |
|--|---------|
| TRS-64K-2 (Converts from 16K to 64K) | \$38.95 |
| TRS-64K-2PAL (8 ea. 4164 with special PAL chip to expand from 64K to 128K) | \$59.95 |

TRS-80 COLOR AND COLOR II

Easy to install Kit comes complete with 8 each 4164N-20 (200ns) 64K Dynamic RAM and documentation for conversion. Converts TRS-80 Color Computers with D, E, ET, F and NC circuit boards to 32K. Also converts TRS-80 Color Computer II to 64K. Flex DOS or OS-9 required to utilize full 64K RAM on all computers.

| | |
|-----------|---------|
| TRS-64K-2 | \$38.95 |
|-----------|---------|

IBM PC AND PC XT

Most of the popular Memory Boards (e.g., Quadram™ Expansion Boards) allow you to add an additional 64K, 128K, 192K, or 256K. The IBM64K Kit will populate these boards in 64K byte increments. The Kit is simple to install—just insert the nine 64K RAM chips in the provided sockets and set the two groups of switches. Complete conversion documentation included.

| | |
|------------------------------|---------|
| IBM64K (Nine 200ns 64K RAMs) | \$43.95 |
|------------------------------|---------|

COMPAQ • COLUMBIA • EAGLE

These PC compatibles and others use the IBM64K for memory expansion.

| | |
|------------------------------|---------|
| IBM64K (Nine 200ns 64K RAMs) | \$43.95 |
|------------------------------|---------|

APPLE IIe

Extended 80-Column/64K RAM Card. Expands memory by 64K to give 128K when used with programs like VisiCalc™. Fully assembled and tested. For detailed description, see Page 68.

| | |
|-------|---------|
| JE864 | \$99.95 |
|-------|---------|

MOS-1416 CMOS INSERTION TOOL \$10.95
(used to insert all above RAM chips to boards)

MICROPROCESSORS AND MISCELLANEOUS COMPONENTS

5000, 50000 SERIES

| Part No. | Pins | Function | Price |
|------------|------|---|--------|
| MM5309 | 28 | 6-Digit with Reset Clock Chip | \$4.95 |
| MM5311 | 28 | 6-Digit with BCD Clock Chip | 4.95 |
| MM5312 | 24 | 4-Digit Any Readout Clock Chip | 4.95 |
| MM5314 | 24 | 6-Digit LED/Incandescent Readout Clock Chip | 4.95 |
| MM5316 | 40 | Alarm Set/Snooze Alarm Timer Clock Chip | 5.95 |
| MM5318 | 28 | Clock/TV Character Generator Clock Chip | 7.95 |
| MM5321N | 16 | TV Camera Sync. Generator | 9.95 |
| MM5322N | 16 | TV Test Color Bar Generator | 14.95 |
| MM5330N | 16 | 4 1/2-Digit DPM Logic Block | 3.95 |
| MM5369AA/N | 8 | Programmable Oscillator/Divider (60Hz) | 1.79 |
| MM5369EST | 8 | Programmable Oscillator/Divider (100Hz) | 1.95 |
| MM5378 | 18 | Digital Auto Clock - VF | 3.95 |
| MM5387 | 40 | 4-Dig. Alarm Clock-Dir. LED Drive (1998/3817) | 4.95 |
| MM5402 | 40 | Digital Alarm Clock - LED | 5.95 |
| MM5430N | 40 | AM/FM Radio Frequency Display | 5.95 |
| MM5445N | 40 | 33-Segment VF Display Driver | 3.95 |
| MM5450N | 40 | 34-Segment LED Display Driver | 3.95 |
| MM5452N | 40 | 32-Segment LCD Display Driver | 3.95 |
| MM5725 | 28 | 8-Digit 4-Function Calculator Chip | 2.95 |
| MM5837N | 8 | Digital Noise Source | 2.49 |
| MK50240N | 16 | Top Octave Frequency Generator | 7.95 |
| MK50250 | 28 | 4/6 Digit Alarm with Snooze & AM/PM (Clock) | 6.95 |
| MM53130N | 18 | Touch Tone Dialer | 5.95 |
| MM53190N | 20 | Push Button Pulse Dialer | 3.95 |
| MM53200N | 18 | Digital Code Trans/Rec. (Garage Door Type) | 3.95 |
| MM54240N | 20 | Asynchronous Transmitter/Receiver | 5.95 |
| MM55110N | 24 | Ph. Lock Lp. Freq. Syn. (w/Rec/Trans. Mode) | 5.95 |
| MM55121N | 16 | Ph. Lock Lp. Freq. Syn. (Serial Data) | 5.95 |
| MM581674N | 24 | Microprocessor Real Time Clock | 8.95 |
| MM581744N | 16 | Microprocessor Compatible Clock | 8.95 |

MISCELLANEOUS CIRCUITS

| | | | |
|-------------|----|---|--------|
| DC10 | 3 | Mostek Voltage Converter (+5VDC to -9VDC) | \$2.95 |
| MF10CN | 20 | General Purpose Dual Active Filter | 3.95 |
| DS0026CN | 8 | Dual MOS Clock Driver (5MHz) 20V Output | 1.95 |
| AF100-ICN | 16 | Universal Active Filter (2.5%) | 6.95 |
| TMS0128NC | 28 | 4-Bit Microcomputer Calculator Chip | 2.49 |
| COP402N | 40 | Microcont. w/64-dig. Ram & Dir. LED Drive | 5.79 |
| COP402MN | 40 | Microcont. w/64-dig. Ram & Dir. LED Drive with N Buss. Int. | 5.95 |
| COP470N | 20 | 32-Seg. VAC Fluorescent Driver | 3.25 |
| UC1671B | 40 | Astro-Full Duplex Synch. or Asynch. | 19.95 |
| WD1691V | 20 | Floppy Support Logic | 9.95 |
| BR1941M | 18 | Dual Baud Rate Generator (COM5016) | 6.95 |
| 26LS32 | 16 | Quad Differential Line Driver | 1.49 |
| 26LS32 | 16 | Quad Differential Line Receiver | 1.49 |
| AM2812DC | 28 | 32x8 First In/First Out Memory | 14.95 |
| IDM2901ADC | 40 | CPU - 4-Bit Slice | 9.95 |
| AM2907PC | 20 | Quad Bus Transceiver w/Interface Logic | 7.95 |
| D3242 | 28 | Address Multiplexer & Refresh Counter | 7.95 |
| AM3705D | 16 | 8-Channel Multiplexer (MM4503CD) | 6.95 |
| TMS5501 | 40 | Synchronous Data Interface (SIRC) | 14.95 |
| SC42549P | 14 | CMOS Smoke Detector Chip | .69 |
| 76477 | 28 | Complex Sound Generator | 3.95 |
| 76489 | 16 | Sound Generator Controller | 9.95 |
| AY-3-8500-1 | 28 | TV Game Chip & Crystal (2.01MHz) | 7.95 |

ANALOG TO DIGITAL — CONVERTERS — DIGITAL TO ANALOG

| Part No. | Pins | Function | Price |
|------------|------|---|---------|
| ADC0801LCN | 20 | 8-Bit A/D Converter (1/4 LSB) | \$14.95 |
| ADC0803LCN | 20 | 8-Bit A/D Converter (1/2 LSB) | 4.95 |
| ADC0804LCN | 20 | 8-Bit A/D Converter (1 LSB) | 3.49 |
| ADC0808CCN | 28 | 8-Bit A/D Converter w/8-Channel Analog | 9.95 |
| ADC0809CCN | 28 | 8-Bit A/D Converter (8-Channel MPX) | 4.49 |
| ADC0816CCN | 40 | 8-Bit A/D Converter w/16-Channel Analog | 14.95 |
| ADC0817CCN | 40 | 8-Bit A/D Converter (16-Ch. MPX) (74C948-1) | 9.49 |
| DAC0806LCN | 16 | 8-Bit D/A Converter (0.78% Lin.) (MC1408P6) | 1.95 |
| DAC0807LCN | 16 | 8-Bit D/A Converter (MC1408P7) | 1.49 |
| DAC0808LCN | 16 | 8-Bit D/A Converter (MC1408P8) | 2.25 |
| DAC0830LCN | 20 | 8-Bit UP D/A Converter (.05% Linear) | 5.95 |
| DAC0831LCN | 20 | 8-Bit UP D/A Converter (.10% Linear) | 4.49 |
| DAC1000LCN | 24 | 10-Bit D/A Conv. Micro. Comp. (.05%) | 7.95 |
| DAC1008LCN | 20 | 8-Bit D/A Conv. Micro. Comp. (.20%) | 6.95 |
| DAC1020LCN | 16 | 10-Bit D/A Converter (0.05% Lin.) | 7.95 |
| DAC1022LCN | 16 | 10-Bit D/A Converter (0.20% Lin.) | 5.95 |
| DAC1222LCN | 18 | 12-Bit D/A Converter (0.20% Lin.) | 6.95 |
| DAC1230LCD | 20 | 12-Bit UP D/A Converter (.05%) | 14.95 |
| DAC1231LCD | 20 | 12-Bit UP D/A Converter (.10%) | 13.95 |

CRT CONTROLLER CHIPS

| | | | |
|-------|----|-----------------------------|--------|
| 6545 | 40 | CRT Controller (CRTC) | \$9.95 |
| 6845 | 40 | CRT Controller (CRTC) | 14.95 |
| 68B45 | 40 | CRT Controller (CRTC) 2MHz | 19.95 |
| 8275 | 40 | Programmable CRT Controller | 29.95 |

DISK DRIVE CONTROLLER CHIPS

| | | | |
|---------|----|--|---------|
| D765AC | 40 | Sgle/Dble Density Floppy Disk Cont. (8272) | \$19.95 |
| 1691V | 20 | Floppy Support Logic | 9.95 |
| 1771N-1 | 40 | Floppy Disk Controller (FD1771) | 16.95 |
| 1791 | 40 | Single/Double Density (Inverted) | 24.95 |
| 1793 | 40 | Single/Double Density (True) | 26.95 |
| 1795 | 40 | Single/Double Density Side Select (Inv.) | 26.95 |
| 1797 | 40 | Single/Double Density Side Select (True) | 29.95 |
| MC3470P | 18 | Floppy Disk Read Amp System | 4.95 |
| 8272 | 40 | Sgle/Dble Density Floppy Disk Cont. (D765AC) | 19.95 |

UART'S

| | | | |
|------------|----|--------------------------------|--------|
| 2651 | 28 | Communication Chip (USART) | \$7.95 |
| 8250 | 40 | Asynchronous Comm. Element | 10.95 |
| 8251A | 28 | Programmable Comm. I/O (USART) | 7.95 |
| AY-5-1013A | 40 | 30K BAUD (TR1602) A/M (S1602) | 3.95 |

GENERATORS

| | | | |
|---------|----|------------------------------------|--------|
| LM566N | 8 | Function Generator | \$1.49 |
| BR1941M | 18 | Dual Baud Rate Generator | 6.95 |
| XR2206 | 16 | Monolithic Function Generator | 3.95 |
| MC4024P | 14 | Dual Voltage Control Multivibrator | 5.95 |
| MM5321N | 16 | TV Camera Sync. Generator | 9.95 |
| MM5322N | 16 | TV Test Color Bar Generator | 14.95 |
| 8038CC | 14 | Precision Wave Form Generator | 4.49 |
| MC14411 | 24 | Bit Rate Frequency | 11.95 |

TELEPHONE/KEYBOARD CHIPS

| | | | |
|-------------|----|---|--------|
| 74C922 | 18 | Keyboard Encoder (16 Keys) (INS8245N) | \$4.49 |
| 74C923 | 20 | Keyboard Encoder (20 Keys) (INS8246N) | 4.95 |
| HD-1-0165-5 | 24 | Keyboard Encoder (16 Keys) | 11.95 |
| KR3600-Std | 40 | Keyboard Encoder (90 Keys) Non-Program. | 12.95 |
| KR3600-PRO | 40 | Keyboard Encoder (90 Keys) Programmable | 13.95 |
| AY-5-2376 | 40 | Keyboard Encoder (88 Keys) (KR2376) | 9.95 |
| AY-5-9100 | 18 | Push Button Telephone Dialer | 14.95 |
| AY-5-9200 | 16 | Repertory Dialer | 14.95 |
| AY-5-9500 | 14 | CMOS Clock Generator | 4.95 |
| MM53130N | 18 | Touch Tone Dialer | 5.95 |
| MM53190N | 20 | Push Button Pulse Dialer | 3.95 |

WESTERN DIGITAL

Dual Baud Rate Clock

The BR1941 is a combination Baud Rate Clock Generator and Programmable Divider. It is manufactured in N-channel MOS using silicon gate tech. This device is capable of generating 16 externally selected clock rates whose frequency is determined by either a single crystal or an externally generated input clock. The BR1941 is a programmable counter capable of generating a division from 2 to (2¹⁶-1).

BR1941M \$6.95

18 pin DIP

MOTOROLA

| | | | |
|----------|----|---|--------|
| MC663P | 14 | Dual J-K Flip-Flop | \$3.79 |
| MC667P | 14 | Dual Monostable Multivibrator | 3.79 |
| MC668P | 14 | Quad 2-Input NAND Gate | 2.29 |
| MC672P | 14 | Quad 2-Input NAND Gate | 2.29 |
| MC1330A1 | 8 | Low Level Video Detector | 1.69 |
| MC1349P | 8 | Video IF Amp (15V operation) | 1.69 |
| MC1350P | 8 | Video IF Amp (12V operation) | 1.19 |
| MC1358P | 14 | TV Sound IF Amp | 1.49 |
| MC1408-7 | 16 | 8-Bit D to A Converter (DAC0807LCN) | 1.49 |
| MC1408-8 | 16 | 8-Bit D to A Converter (DAC0808LCN) | 2.25 |
| MC1439L | 14 | Linear Op Amp (ULN2139) | 2.95 |
| MC1801P | 14 | Dual 5-1 NAND Gate | .79 |
| MC1808P | 14 | Quad 2-Input OR Gate | .79 |
| MC1810P | 14 | Quad 2-Input NOR Gate | .79 |
| MC1818P | 14 | Quad 2-Input NAND Gate (Open Collector) | 1.29 |

| | | | |
|-----------|----|--|--------|
| MC3310P | 8 | FM-IF Wide Band Amp | \$7.99 |
| MC3340P | 8 | Electronic Attenuator | 1.49 |
| MC3441AP | 14 | Quad Gen. Purp. Interface Bus Transceiver | 2.95 |
| MC3346P | 14 | Quad Bus Transceiver | 1.49 |
| MC3470P | 18 | Floppy Disc Read Amp System | 4.95 |
| MC4024P | 14 | Dual Voltage Control Multivibrator (11C24) | 5.95 |
| MC4044P | 14 | Frequency Phase Detector (11C44) | 5.29 |
| MC14409 | 16 | Binary-to-Phone Pulse Converter | 16.95 |
| MC14410 | 16 | 2-of-8 Tone Encoder | 8.95 |
| MC14411 | 24 | Bit Rate Frequency Generator | 11.95 |
| MC14412 | 16 | Universal Low-Speed Modem | 7.95 |
| MC14419 | 16 | 2-of-8 Keypad-to-Binary Encoder | 12.95 |
| MC14433 | 24 | 3 1/2-Digit A/D Converter | 17.95 |
| MC14572 | 16 | Hex Gate | 1.19 |
| MCM66710P | 24 | 128x9x7 ASCII Shifted w/Greek (MC6571) | 13.95 |
| MCM66750P | 24 | 128x9x7 Alpha. Control Char. Gen. (MC6575) | 12.95 |

MICROPROCESSOR COMPONENTS

Z80, Z80A, Z80B, Z8000 SERIES

| Part No. | Pins | Function | Price |
|-----------------|------|--|--------|
| Z80-2MHz | | | |
| Z80 | 40 | CPU (MK3880N)(780C) 2MHz | \$2.95 |
| Z80-CTC | 28 | Counter Timer Circuit (MK3882) | 3.49 |
| Z80-DART | 40 | Dual Asynchronous Receiver/Transmitter | 8.95 |
| Z80-DMA | 40 | Direct Memory Access Circuit (MK3883) | 12.49 |
| Z80-PIO | 40 | Parallel I/O Interface Controller (MK3881) | 3.49 |
| Z80-SIO/0 | 40 | Serial I/O (Tx/CB & Rx/CB Bonded) (MK3884) | 11.49 |
| Z80-SIO/1 | 40 | Serial Input/Output (Lacks DTRB) | 11.49 |
| Z80-SIO/2 | 40 | Serial Input/Output (Lacks SYNCB) | 11.49 |
| Z80-SIO/9 | 40 | Serial Input/Output | 11.49 |

| | | | |
|------------------|----|--|--------|
| Z80A-4MHz | | | |
| Z80A | 40 | CPU (MK3880N-4)(780C-1) 4MHz | \$3.49 |
| Z80A-CTC | 28 | Counter Timer Circuit (MK3882-4) | 4.49 |
| Z80A-DART | 40 | Dual Asynchronous Receiver/Transmitter | 9.95 |
| Z80A-DMA | 40 | Direct Memory Access Circuit (MK3883-4) | 12.95 |
| Z80A-PIO | 40 | Parallel I/O Interface Controller (MK3881-4) | 3.95 |
| Z80A-SIO/0 | 40 | Serial I/O (Tx/CB & Rx/CB Bonded) (MK3884-4) | 11.95 |
| Z80A-SIO/1 | 40 | Serial I/O (Lacks DTRB) | 11.95 |
| Z80A-SIO/2 | 40 | Serial I/O (Lacks SYNCB) | 11.95 |
| Z80A-SIO/9 | 40 | Serial Input/Output | 11.95 |

| | | | |
|------------------|----|--|--------|
| Z80B-6MHz | | | |
| Z80B | 40 | CPU (MK3880N-6) 6MHz | \$8.95 |
| Z80B-CTC | 28 | Counter Timer Circuit (MK3882-6) | 11.95 |
| Z80B-DART | 40 | Dual Asynchronous Receiver/Transmitter | 19.95 |
| Z80B-PIO | 40 | Parallel I/O Interface Controller (MK3881-6) | 10.95 |

| | | | |
|--------------|----|--|---------|
| Z8000 | | | |
| Z8001B | 48 | CPU Segmented (10MHz) | \$79.95 |
| Z8002B | 40 | CPU Non-Segmented (10MHz) | 59.95 |
| Z8030A | 40 | Serial Communications Controller (6MHz) | 42.95 |
| Z8036A | 40 | Counter/Timer and Parallel I/O Unit (6MHz) | 23.95 |

| | | |
|--------------|--|---------------|
| M-Z80 | Zilog Tech. Manual Z80, Z80A-CPU (75 pgs.). | \$7.50 |
| 30013 | 1984 Zilog Data Book (851 pgs.). | \$9.95 |

6500 SERIES

| | | | |
|-------|----|--------------------------------------|--------|
| 6502 | 40 | MPU with Clock (1MHz) | \$4.95 |
| 6502A | 40 | MPU with Clock (2MHz) | 6.49 |
| 6502B | 40 | MPU with Clock (3MHz) | 8.95 |
| 6520 | 40 | Peripheral Inter. Adapter | 3.95 |
| 6522 | 40 | Versatile Inter. Adapter | 5.49 |
| 6545 | 40 | CRT Controller (CRTC) | 9.95 |
| 6551 | 28 | Asynchronous Comm. Interface Adapter | 10.95 |

6800, 68B00, 68000 SERIES

6800-1MHz

| | | | |
|--------|----|------------------------------------|--------|
| 6800 | 40 | MPU-8-Bit | \$2.95 |
| 6802 | 40 | MPU-8-Bit with Clock and RAM | 7.95 |
| 6809 | 40 | CPU-8-Bit (On-Chip Oscillator) | 8.95 |
| 6809E | 40 | CPU-8-Bit (External Clocking) | 9.95 |
| 6810 | 24 | 128x8 Static RAM | 3.95 |
| 6821 | 40 | Peripheral Inter. Adapt (MC6820) | 2.95 |
| 6830L8 | 24 | 1024x8-Bit ROM Mik/Min Bug Program | 9.95 |
| 6845 | 40 | CRT Controller (CRTC) | 14.95 |
| 6850 | 24 | Asynchronous Comm. Adapter (ACIA) | 3.95 |
| 6860 | 24 | 0-600 bps Digital MODEM | 7.95 |
| 6880A | 16 | Quad 3-State Bus Trans. (N8T26) | 1.59 |

68B00-2MHz

| | | | |
|--------|----|--|---------|
| 68B00 | 40 | MPU-8-Bit | \$11.95 |
| 68B02 | 40 | MPU-8-Bit with Clock and RAM | 11.95 |
| 68B09 | 40 | CPU-8-Bit (On-Chip Oscillator) | 11.95 |
| 68B09E | 40 | CPU-8-Bit (External Clocking) | 14.95 |
| 68B10 | 24 | 128x8 Static RAM | 5.95 |
| 68B21 | 40 | Peripheral Interface Adapter | 5.95 |
| 68B45 | 40 | CRT Controller (CRTC) | 19.95 |
| 68B50 | 24 | Asynchronous Comm. Int. Adapter (ACIA) | 5.95 |

68000 SERIES

| | | | |
|-----------|----|---|---------|
| MC68000L8 | 64 | MPU 16-Bit (8MHz) | \$39.95 |
| MC68488P | 40 | General Purpose Interface Adapter | 9.95 |
| MC68652P2 | 40 | Multi-Protocol Comm. Cont. 2MHz(2652) | 14.95 |
| MC68661PB | 28 | Enhanced Prog. Comm. Interface (2661-2) | 8.95 |
| MC68764C | 24 | 8192x8-Bit UV EPROM (21V) 450ns | 24.95 |

MICRO CHARTS

| | | |
|-----------------|------------------------------------|---------------|
| ML-Z80 | Z80 CPU. | \$5.95 |
| ML-6502 | 6502 (65XX). | 5.95 |
| ML-8048 | 8048 and Relatives. | 5.95 |
| ML-8080A | 8080A/8085A. | 5.95 |
| ML-8086 | 8086/8088. | 5.95 |

See Page 17 for more detailed information.

8000, 80000 SERIES

| Part No. | Pins | Function | Price |
|-------------|------|---------------------------------------|---------|
| 8000 | | | |
| 8031 | 40 | CPU with RAM and I/O | \$14.95 |
| 8035 | 40 | MPU-8-Bit | 5.95 |
| 8039 | 40 | CPU-Single Chip 8-Bit (128 Bytes RAM) | 5.95 |
| 8040 | 40 | CPU-8-Bit (256 Bytes RAM) | 9.95 |
| 8048** | 40 | MPU-8-Bit (Can use for 8035) | 3.95 |
| 8049** | 40 | CPU-Single 8-Bit (Can use for 8039) | 3.95 |
| 8060 | 40 | CPU-8-Bit NMOS | 14.95 |
| 8070 | 40 | CPU-64 Bytes RAM | 19.95 |
| 8073 | 40 | CPU-with Basic Micro Interpreter | 29.95 |
| 8080A | 40 | CPU | 3.95 |
| 8085 | 40 | CPU-8-Bit N-Channel | 4.95 |
| 8085A-2 | 40 | CPU-8-Bit N-Channel (5MHz) | 11.95 |
| 8086-2 | 40 | CPU-16-Bit (8MHz) | 24.95 |
| 8087 | 40 | Arithmetic Processor | 189.95 |
| 8088 | 40 | CPU-16-Bit (8-Bit Data Bus) | 19.95 |

8100

| | | | |
|--------|----|----------------------------------|---------|
| 8154 | 40 | 1K (128x8) RAM 16-Bit I/O | \$13.95 |
| 8155 | 40 | HMOS RAM I/O Port and Timer | 6.95 |
| 8156 | 40 | RAM with I/O Port and Timer | 8.95 |
| 8185-2 | 18 | 1024x8 Bit Static RAM for MCS-85 | 39.95 |

8200

| | | | |
|---------|----|---|--------|
| 8205 | 16 | High Speed 1 out of 8 Binary Decoder (3205) | \$3.95 |
| 8212 | 24 | 8-Bit Input/Output (74S412) | 2.95 |
| 8214 | 24 | Priority Interrupt Control | 3.79 |
| 8216 | 16 | Bi-Directional Bus Driver | 1.95 |
| 8224 | 16 | Clock Generator/Driver | 2.95 |
| 8226 | 16 | Bus Driver | 2.25 |
| 8228 | 28 | System Controller/Bus Driver (74S428) | 4.95 |
| 8237 | 40 | Programmable DMA Controller | 15.95 |
| 8237-5 | 40 | Programmable DMA Controller | 19.95 |
| 8238 | 28 | System Controller (74S438) | 4.95 |
| 8243 | 24 | I/O Expander for 48 Series | 4.95 |
| 8245 | 18 | 16-Key Keyboard Encoder (74C922) | 4.49 |
| 8246 | 20 | 20-Key Keyboard Encoder (74C923) | 4.95 |
| 8247 | 28 | Display Controller (74C911) | 8.95 |
| 8248 | 28 | Display Controller (74C912) | 8.95 |
| 8250 | 40 | Asynchronous Comm. Element | 10.95 |
| 8251 | 28 | Prog. Comm. I/O (USART) | 4.95 |
| 8251A | 28 | Prog. Comm. Interface (USART) | 7.95 |
| 8253 | 24 | Prog. Interval Timer | 6.95 |
| 8253-5 | 24 | Prog. Interval Timer | 7.95 |
| 8255 | 40 | Prog. Peripheral I/O (PPI) | 4.95 |
| 8255A-5 | 40 | Prog. Peripheral I/O (PPI) | 7.95 |
| 8257 | 40 | Prog. DMA Controller | 5.95 |
| 8257-5 | 40 | Prog. DMA Controller | 8.95 |
| 8259 | 28 | Prog. Interrupt Controller | 5.95 |
| 8259-5 | 28 | Prog. Interrupt Controller | 7.49 |
| 8272 | 40 | Single Density Floppy Disk Cont. (D765A) | 19.95 |
| 8274 | 40 | Multi-Protocol Serial Controller (7201) | 29.95 |
| 8275 | 40 | Prog. CRT Controller | 29.95 |
| 8279 | 40 | Prog. Keyboard/Display Interface | 6.95 |
| 8279-5 | 40 | Prog. Keyboard/Display Interface | 9.95 |
| 8282 | 20 | Octal Latch | 8.95 |
| 8284 | 18 | Clock Generator and Driver | 6.95 |
| 8286 | 20 | Octal Bus Transceiver | 7.95 |
| 8287 | 20 | Octal Bus Transceiver (Inverted) | 7.95 |
| 8288 | 20 | Bus Controller | 19.95 |

8300

| | | | |
|------|----|--|--------|
| 8303 | 20 | 8-Bit Tri-State Bi-Directional Transceiver | \$3.49 |
| 8304 | 20 | 8-Bit Bi-Directional Receiver | 3.49 |
| 8307 | 20 | 8-Bit Bi-Directional Receiver | 3.49 |
| 8308 | 20 | 8-Bit Bi-Directional Receiver | 3.49 |
| 8310 | 20 | Octal Latched Peripheral Driver | 3.95 |
| 8311 | 20 | Octal Latched Peripheral Driver | 3.95 |

8700

| | | | |
|------|----|--------------------------------------|---------|
| 8741 | 40 | 8-Bit Universal Peripheral Interface | \$29.95 |
| 8748 | 40 | MPU-HMOS EPROM | 39.95 |
| 8749 | 40 | MPU-8-Bit (EPROM Version of 8049) | 39.95 |
| 8755 | 40 | 16K EPROM with I/O | 39.95 |

80000

| | | | |
|---------|-----|--|---------|
| 80186-6 | 68* | High Integration 16-Bit MPU | \$99.95 |
| 80188 | 68* | High Integration 16-Bit MPU (8-Bit Data Bus) | 89.95 |

**8048 MPU AND 8049 CPU

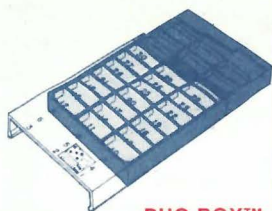
To convert an 8048 to an 8035, or an 8049 to an 8039, just tie Pin 7 high to by-pass the Internal ROM.

*REQUIRES SPECIAL 68-PIN SOCKET (See Page 19)

| | | |
|---------------|--|----------------|
| 210830 | 1983 Intel Mem. Data Book (880 pgs.). | \$14.95 |
| 230843 | 1983 Intel Microprocessor & Peripheral Data Book-2 Volumes (2575 pgs.). | \$19.95 |



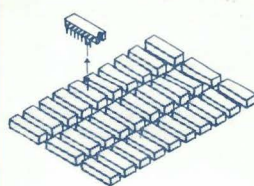
BUG BOX™ SYSTEMS



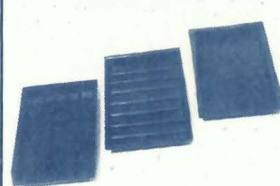
BUG BOX™



BUG CAGE™



BUG RUG™



BUG TRAY™

BUG BOX™ — 30 individual compartments • Stores sixty 8-pin or thirty 14- or 16-pin DIPs • Heavy duty injection molded plastic • Clear plastic cover slides and locks • Cover marked with numbers 1 thru 30 • Compartment size: 1" x .38" x .5" deep • Box size: 4.9" x 3.3" x .6" • Weight: 1.75 oz. (Bug Rugs not included.)

BUG BOX™

Please specify color code: (B) Blue, (R) Red, (W) White, (Y) Yellow, (C) Clear

| PART NO./COLOR CODE | 1-9 | 10 + |
|---------------------|--------|--------|
| BGX () | \$2.29 | \$1.99 |

ANTI-STATIC

| | | |
|-----------|--------|--------|
| BGXAS () | \$3.29 | \$2.89 |
|-----------|--------|--------|

LSI BIG BUG BOX™ — Designed to store large IC's, Resistors, Capacitors and Diodes • Divided into three compartments measuring 1" x 1.38" x .5" deep • Six vertical and six horizontal dividers included • Heavy duty injection molded plastic • Box size: 4.9" x 3.3" x .6" • Weight: 1.75 oz. (Bug Rugs not included.)

LSI BIG BUG BOX™

Please specify color code: (B) Blue, (R) Red, (W) White, (Y) Yellow, (C) Clear

| PART NO./COLOR CODE | 1-9 | 10 + |
|---------------------|--------|--------|
| BLX () | \$3.29 | \$2.88 |

ANTI-STATIC

| | | |
|-----------|--------|--------|
| BLXAS () | \$4.29 | \$3.79 |
|-----------|--------|--------|

BUG CAGE™ — Twelve locations store Bug Boxes, Big Bug Boxes or Bug Trays • Modular and interlocking • Heavy duty injection molded plastic • Each cage has six slip-on locations • Two cages per package • Cage size: 5-1/8" x 5" x 3-7/8" • Four colors available — please specify color code: (B) Blue, (R) Red, (W) White, (Y) Yellow

| PART NO./COLOR CODE | PRICE |
|------------------------------------|--------------|
| BGC () 2 Cages (6 locations each) | \$11.95/pair |

CAGE COVER™ — Clear plastic snap-in cover to seal and hold six Bug Boxes or Bug Trays in place inside the Bug Cage.

| PART NO. | PRICE |
|----------|--------|
| BGC-CVR | \$2.98 |

BUG RUG™ — Static discharge protection for CMOS and MOSFET devices • Pre-cut to dimensions of BUG BOX (1" x .35") • The BGR-030 contains 30 foam rectangles • The BBR-006 package contains 6 foam rectangles 2.08" x 1"

| PART NO. | DESCRIPTION | PRICE |
|----------|---|--------|
| BGR-030 | 30 foam rectangles for Bug Box | \$1.98 |
| BBR-006 | 6 foam rectangles for one LSI Big Bug Box | 1.98 |



The Black Hole EPROM Eraser
9 Chips — 8 Minutes

The Black Hole EPROM Eraser will completely and safely erase 9 EPROMs in less than 8 minutes. The Black Hole is a fully automatic cassette loading eraser featuring U-shaped 4000-hour UV lamps mounted in a special ALZAK (UV reflectivity of 9) parabolic light tunnel. In operation, the user slips in an anti-static Bug Box (3 ea. included) containing the EPROMs to be erased into the loading slot on the front panel of Black Hole. The rest is fully automatic. The Black Hole latches the Bug Box into place, turns on the UV lamps and starts its fully solid state (CMOS) UV integration dose timer. The percentage erasure time is monitored and displayed on a front panel LED readout. At the end of the erase cycle, the Black Hole ejects the Bug Box containing the 9 erased EPROMs and turns off power.

| PART NO. | DESCRIPTION | PRICE |
|---------------|------------------------------------|----------|
| ERS-008AE-LED | Eraser w/Auto Eject/LED Readout | \$249.95 |
| ULV-008 | Replacement Lamp for ERS-008AE-LED | \$29.95 |

BUG TRAY™ — Stores in Bug Cage • Molded plastic • Three styles: Open (1 compartment 3.05" x 4.6" x .6"); Vertical (5 compartments .5" x 4.6" x .6"); and Horizontal (8 compartments .4" x 3.95" x .6") • Ideal for tools, hardware, components, etc. • Tray size: 3.55" x 5.05" x .6"

| PART NO. | DESCRIPTION | PRICE |
|----------|------------------------|--------|
| BTH-001 | Horizontal Bug Tray | \$1.95 |
| BTV-001 | Vertical Bug Tray | 1.95 |
| BTO-001 | Open Bug Tray | 1.95 |
| BTX-003 | 1 of each Bug Tray (3) | 4.98 |

Ultra-Violet Products, Inc.

UVP EPROM Erasers

1 Chip — 15 Minutes
8 Chips — 21 Minutes



Erases all EPROMs. Erases up to 8 chips within 21 minutes (1 chip in 15 minutes). Maintains constant exposure distance of 1" Special conductive foam liner eliminates static build-up. Built-in safety lock to prevent UV exposure. Only 9.0"L x 3.70"W x 2.60"H. Complete with holding tray for 8 chips UV intensity: 6800 UW/CM²

| PART NO. | DESCRIPTION | PRICE |
|----------|---------------------------|---------|
| DE-4 | UV-EPROM Eraser | \$74.95 |
| UVS-11EL | Replacement Lamp for DE-4 | \$16.95 |



The Memorase C-25

25 Chips — 10 Minutes

The C-25 erases up to 25 EPROMs in only 10 minutes. A 60-minute timer makes exposure settings easy. The C-25 erases and shuts itself off. The built-in safety interlock prevents operation unless the drawer is firmly closed. Size: 9"L x 9"W x 4.75"H. Weight: 11.3 lbs.

| PART NO. | DESCRIPTION | PRICE |
|----------|--------------------------------|----------|
| C-25 | Eraser with Timer | \$299.95 |
| RGL-1 | Replacement Grid Lamp for C-25 | \$139.95 |

REFERENCE CARDS AND DATA BOOKS



Size:
7" x 9"



National Semiconductor



Size:
7" x 9"

| Order No. | Book | Price |
|-----------|--|-------|
| 30001 | CMOS (CD4000/74C) Data Book (1981). . . . \$6.95 Contains information on National's SSI/MSI CMOS products. This includes the 54C/74C Series and National's line of CD4XXX Series devices (924 pages). | |
| 30003 | Linear Data Book (1982). . . . \$11.95 Applications, features and diagrams include detailed sections for voltage regulators, op amps, voltage comparators, A-to-D and D-to-A converters, industrial blocks, and audio, radio and TV circuits (1952 pages). | |
| 30014 | Intuitive IC CMOS Evolution (1984). . . . \$9.95 This book chronicles an industry in dramatic change...from early IC's to micro CMOS technology and CAD for VLSI. A vital aid to engineers and industry observers who need to plan for the future before it arrives (165 pages). | |
| 30015 | Intuitive IC Op Amps (1984). . . . \$14.95 More complex linear IC products suggest a greater need for information about op amps. This book fills this need...from basics to key op amp application circuits (297 pages). | |

INTERSIL

Size:
7" x 9"



Zilog

Size:
7" x 11"



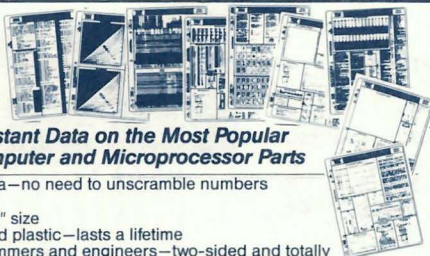
| | | |
|-------|---|--|
| 30009 | Intersil Data Book (1984). . . . \$9.95 Complete Line (965 pages). | |
| 30013 | Zilog Data Book (1984). . . . \$9.95 Microprocessors and Support Chips (851 pages). | |

MICROPROCESSOR USER MANUAL

M-Z80 Technical Manual for Zilog Z80, Z80A (75 pgs.) (7" x 9"). . . \$7.50

NOTE: The Manufacturers of the Data Books DO NOT print new books each year, so we will carry the most current editions.

MICRO CHARTS



Instant Data on the Most Popular Computer and Microprocessor Parts

- Fully decoded data—no need to unscramble numbers
- Instant Access
- Compact 8½" x 11" size
- Durable credit card plastic—lasts a lifetime
- Perfect for programmers and engineers—two-sided and totally comprehensive
- Clear and concise tables for: full instruction set, disassembly, ASCII, base conversion, effect of flags, compare vs. jump, interrupt structure, pinout, cycle times, diagrams, bug notes, and much more...

| Part No. | Reference | PRICE |
|-----------------|---------------------------------------|--------|
| ML-ALGO | Basic Algorithms. | \$5.95 |
| ML-COMP | Active Electronic Components. | \$5.95 |
| ML-STAT | Generalizing from Samples. | \$5.95 |
| | QC and Testing Statistics, etc. | |
| ML-WS | WordStar®. | \$5.95 |
| ML-Z80 | Z80 CPU. | \$5.95 |
| ML-6502 | 6502 (65XX). | \$5.95 |
| ML-7400 | 5400/7400 TTL Pin Outs. | \$5.95 |
| ML-8048 | 8048 and Relatives. | \$5.95 |
| ML-8080A | 8080A/8085A. | \$5.95 |
| ML-8086 | 8086/8088. | \$5.95 |

| Order No. | Book | Price |
|-----------|---|-------|
| 30016 | Voltage Regulator Handbook (1982). . . . \$6.95 Contains data to simplify the task of selecting an appropriate three-terminal regulator for your specific system's needs. Also—heat sink selection and design, power transformer and filter specifications and various extended use applications (320 pgs). | |
| 30017 | MOS Memory Data Book (1984). . . . \$5.95 Contains information on RAMs, EPROMs and EEPROMs (212 pgs). | |
| 30018 | CMOS (74HC, RAMs, and PROMs) Data Book (1984). . . . \$11.95 Contains data on 74HC series, LSI/VLSI CMOS, Filters, Converters, Display controllers/drivers, RAMs, PROMs, COPS Micro-controllers, 8-bit Microprocessors and Development Systems products (1520 pages). | |
| 30019 | Interface, Bipolar LSI, Bipolar Memory, Programmable Logic Data Book (1983). . . . \$11.95 Contains complete specifications on these high technology products, as well as applications information, product selection and cross reference guides (1510 pages). | |



TEXAS INSTRUMENTS

| | | |
|-------|---|--|
| 30020 | TI TTL Data Book (1984). . . . \$14.95 Due 3/1/85! Detailed specifications and application information on the family of low power Schottky (LS), Schottky (S), and the standard TTL logic devices (1200 pages). | |
|-------|---|--|



Size:
7" x 9"

| | | |
|--------|---|--|
| 210830 | Intel Memory Components Handbook (1983/84). . . . \$14.95 Contains all Applications Notes, Article Reprints, Data Sheets, and other design information on Intel's RAMs, DRAMs, EPROMs, E-PROMs & Bubble Memories (880 pages). | |
| 230843 | Intel Microsystem Components Handbook (1983/84). . \$19.95 Contains Data Sheets on all of Intel's Microprocessors and peripherals—2 volumes (2575 pages). | |

MICRO ESSENTIALS



Instant Help for the Most Popular Software!

- Easy for beginners; handy for experts.
- The Reference side shows the most important commands.
- The Review side describes program capabilities and operation.
- Non-glare styrene cards are handy (8½" x 11") and durable.
- Selecting a Microcomputer—key technical & background information, to help you select the right system.
- Digital Reference data—explanations & tables for RS-232C interfacing, Binary/ASCII/Hex/Decimal conversion, binary numbering, logical operators, and much more.

| Part No. | Reference | PRICE |
|---------------|------------------------------------|--------|
| ME1011 | The CP/M® System. | \$2.95 |
| ME1012 | Digital Reference Card. | \$2.95 |
| ME1013 | Selecting a Microcomputer. | \$2.95 |
| ME1014 | WordStar®. | \$2.95 |
| ME1015 | VisiCalc®. | \$2.95 |
| ME1016 | dBASE II®. | \$2.95 |



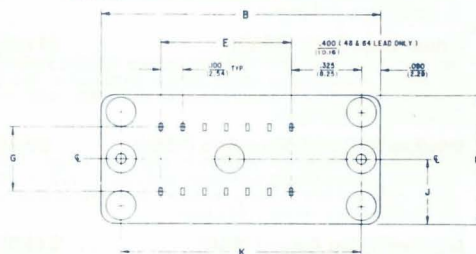
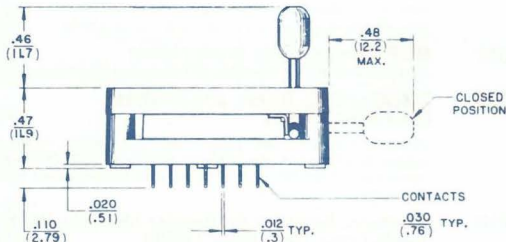
Zero Insertion Force Sockets



PHYSICAL DESCRIPTION: • Body Material: G.F. PSF Plastic • Contact Material: BeCu • Plating: Nickel Boron • Contact Resistance: $\leq .005$ ohms • Voltage Breakdown: 2,000 volts • Operating Life: 25,000 to 50,000 tests • Insertion-Extraction Pressure: Zero Force • Temperature Range: -55°C to 150°C



**ZIP DIP II
224-3344
SOCKET**

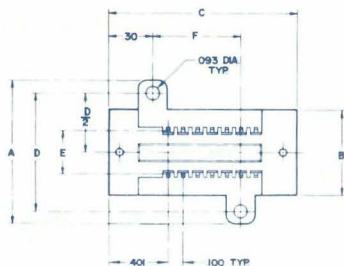


| SOCKET PART NO. | LDS | LDS CTRS ACCEPTED | DIMENSIONS | | | | | | PRICE | |
|--------------------|-----|----------------------|------------|--------------|-------------|-------------|-------------|--------------|---------|-------|
| | | | B | E | G | H | J | K | 1-9 | 10 up |
| 214-3339 | 14 | .17-.43(4.3-10.9) | 1.30(33.0) | .604(15.34) | .300(7.62) | .603(15.32) | .302(7.67) | 1.115(28.32) | \$ 5.95 | 5.39 |
| 216-3340 | 16 | .17-.43(4.3-10.9) | 1.39(35.3) | .705(17.91) | .300(7.62) | .602(15.29) | .301(7.64) | 1.218(30.94) | 5.49 | 4.79 |
| 218-3341 | 18 | .17-.43(4.3-10.9) | 1.49(37.8) | .805(20.45) | .300(7.62) | .598(15.19) | .299(7.59) | 1.317(33.45) | 8.95 | 7.95 |
| 220-3342 | 20 | .17-.43(4.3-10.9) | 1.59(40.9) | .905(22.99) | .300(7.62) | .603(15.32) | .301(7.64) | 1.419(36.04) | 6.95 | 5.95 |
| 222-3343 | 22 | .27-.53(6.9-13.5) | 1.69(42.9) | 1.007(25.58) | .400(10.16) | .703(17.86) | .352(8.94) | 1.519(38.58) | 9.49 | 8.29 |
| 224-3344 | 24 | .47-.73(11.9-18.5) | 1.79(45.5) | 1.107(28.12) | .600(15.24) | .907(23.04) | .454(11.53) | 1.610(40.89) | 6.95 | 5.95 |
| 228-3345 | 28 | .47-.73(11.9-18.5) | 1.99(50.5) | 1.307(33.2) | .600(15.24) | .905(22.99) | .452(11.48) | 1.827(46.41) | 7.49 | 6.49 |
| 240-3346 | 40 | .47-.73(11.9-18.5) | 2.60(66.0) | 1.913(48.59) | .600(15.62) | .898(22.81) | .449(11.4) | 2.421(61.49) | 10.49 | 9.49 |

— ZIP DIP® II SOCKETS Mount in ZIP DIP® II RECEPTACLES —



Zero Insertion Force Receptacles

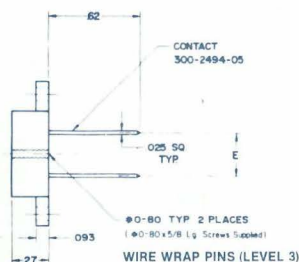


PHYSICAL DESCRIPTION:

• Body Material: G.F. PSF Plastic
• Contact Material: BeCu
• Plating: Nickel Boron • Contact Type: Wire Wrap (Level 3)
• Temperature Range: -55°C to 150°C • Contact Resistance: $\leq .005$ ohms



**ZIP DIP II
224-3597
RECEPTACLE**



| RECEPTACLE PART NO. | LDS | DIMENSIONS | | | | | | PRICE | |
|------------------------|-----|------------|------|-------|-------|------|-------|---------|-------|
| | | A | B | C | D | E | F | 1-9 | 10 up |
| 214-3592 | 14 | 1.000 | .600 | 1.283 | .820 | .300 | .600 | \$ 9.49 | 8.49 |
| 216-3593 | 16 | .960 | .560 | 1.375 | .773 | .300 | .700 | 9.95 | 8.95 |
| 218-3594 | 18 | .950 | .550 | 1.486 | .770 | .300 | .804 | 11.95 | 10.75 |
| 220-3595 | 20 | 1.000 | .600 | 1.583 | .820 | .300 | .900 | 10.95 | 9.89 |
| 222-3596 | 22 | 1.060 | .650 | 1.687 | .875 | .405 | 1.005 | 12.95 | 11.79 |
| 224-3597 | 24 | 1.265 | .860 | 1.772 | 1.080 | .603 | 1.100 | 10.49 | 9.29 |
| 228-3598 | 28 | 1.260 | .860 | 1.983 | 1.085 | .600 | 1.300 | 10.49 | 9.19 |
| 240-3599 | 40 | 1.270 | .865 | 2.583 | 1.085 | .606 | 1.900 | 15.95 | 14.19 |

IC SOCKETS

TO-3 SOCKETS & INSULATORS

HEADER PLUGS & COVERS

IC/SOCKET RAILS

IC Solderetail — Low Profile (Tin) Sockets

| Part No. | 1-9 | 10-99 | 100-999 |
|----------------|-------|-------|---------|
| 8 pin LP..... | \$.16 | \$.14 | \$.13 |
| 14 pin LP..... | .17 | .15 | .14 |
| 16 pin LP..... | .19 | .17 | .16 |
| 18 pin LP..... | .26 | .24 | .23 |
| 20 pin LP..... | .30 | .27 | .25 |



| Part No. | 1-9 | 10-99 | 100-999 |
|---------------------------------|-------|-------|---------|
| 22 pin LP..... | \$.31 | \$.28 | \$.26 |
| 24 pin LP (6/10"W)..... | .33 | .30 | .28 |
| 24 pin SLP (Skinny) 3/10"W..... | .65 | .55 | .49 |
| 28 pin LP..... | .40 | .37 | .35 |
| 40 pin LP..... | .49 | .46 | .43 |

Solderetail Standard (Gold)

| | | | |
|----------------|-------|-------|-------|
| 8 pin SG..... | \$.39 | \$.35 | \$.29 |
| 14 pin SG..... | .49 | .45 | .39 |
| 16 pin SG..... | .55 | .49 | .45 |
| 18 pin SG..... | .65 | .59 | .51 |
| 20 pin SG..... | .75 | .65 | .59 |



| | | | |
|----------------|-------|-------|-------|
| 22 pin SG..... | \$.79 | \$.69 | \$.65 |
| 24 pin SG..... | .79 | .69 | .65 |
| 28 pin SG..... | .95 | .85 | .75 |
| 36 pin SG..... | 1.25 | 1.15 | .99 |
| 40 pin SG..... | 1.39 | 1.25 | 1.15 |

Wire Wrap Sockets (Gold) Level 3

| | | | |
|------------------|-------|-------|-------|
| 8 pin WW..... | \$.55 | \$.49 | \$.45 |
| 10 pin WW..... | .69 | .65 | .59 |
| 14 pin WW..... | .75 | .69 | .65 |
| 14 pin TWW*..... | .49 | .45 | .39 |
| 16 pin WW..... | .79 | .72 | .65 |
| 16 pin TWW*..... | .55 | .49 | .45 |
| 18 pin WW..... | .95 | .85 | .75 |

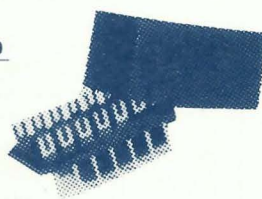


*TIN PLATING (TWW)

| | | | |
|----------------|--------|--------|-------|
| 20 pin WW..... | \$1.19 | \$1.09 | \$.95 |
| 22 pin WW..... | 1.29 | 1.19 | 1.05 |
| 24 pin WW..... | 1.35 | 1.19 | 1.09 |
| 28 pin WW..... | 1.69 | 1.55 | 1.39 |
| 36 pin WW..... | 1.89 | 1.79 | 1.69 |
| 40 pin WW..... | 2.29 | 1.95 | 1.79 |

Header Plugs (Gold)

| Part No. | 1-9 | 10-99 | 100-999 |
|----------------|-------|-------|---------|
| 14 pin HP..... | \$.65 | \$.59 | \$.55 |
| 16 pin HP..... | .69 | .65 | .59 |
| 20 pin HP..... | .99 | .93 | .89 |
| 24 pin HP..... | 1.15 | .99 | .89 |
| 28 pin HP..... | 1.29 | 1.19 | 1.10 |
| 40 pin HP..... | 1.89 | 1.69 | 1.49 |



Header Covers

| Part No. | 1-9 | 10-99 | 100-999 |
|----------------|-------|-------|---------|
| 14 pin HC..... | \$.15 | \$.13 | \$.12 |
| 16 pin HC..... | .19 | .17 | .15 |
| 20 pin HC..... | .27 | .25 | .23 |
| 24 pin HC..... | .29 | .25 | .22 |
| 28 pin HC..... | .45 | .42 | .39 |
| 40 pin HC..... | .49 | .45 | .42 |

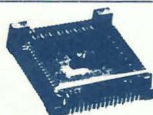
| Part No. | 1-9 | 10-99 | 100-999 |
|------------------------------|-------|-------|---------|
| MP-3452-T (Socket)..... | \$.35 | \$.29 | \$.25 |
| ITO-3 (Metal Insulator)..... | .12 | .10 | .08 |



Plastic TO-3 Socket and Metal Insulator

TO-3 Sockets and Metal Insulator for LM309K, LM320K, LM340K, etc.

| Part No. | 1-9 | 10-99 | 100-999 |
|------------------|---------|---------|---------|
| 268-50-1102..... | \$19.95 | \$17.95 | \$14.95 |



TEXTOL 68 Lead Chip Carrier Socket

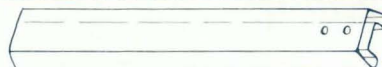
For 80186, 80188, and 80286 (IC's)



Integrated Circuit Rails

| Part No. | Inches | Fits IC Packages | 1-9 | 10-99 | 100 |
|----------|--------|------------------|-------|-------|-------|
| RIC-5 | 5" | 8,14,16,18,20,22 | \$.10 | \$.08 | \$.07 |
| RIC-10 | 10" | 8,14,16,18,20,22 | .19 | .15 | .13 |
| RIC-20 | 20" | 8,14,16,18,20,22 | .29 | .25 | .21 |
| RIC-210 | 10" | 24,28,36,40 | .21 | .19 | .17 |
| RIC-220 | 20" | 24,28,36,40 | .31 | .28 | .25 |

RAILS



Low Profile Socket Rails

| Part No. | Inches | Fits Socket Pkgs. | 1-9 | 10-99 | 100 |
|----------|--------|-------------------|-------|-------|-------|
| RPL-10 | 10" | 8,14,16,18,20,22 | \$.19 | \$.16 | \$.13 |

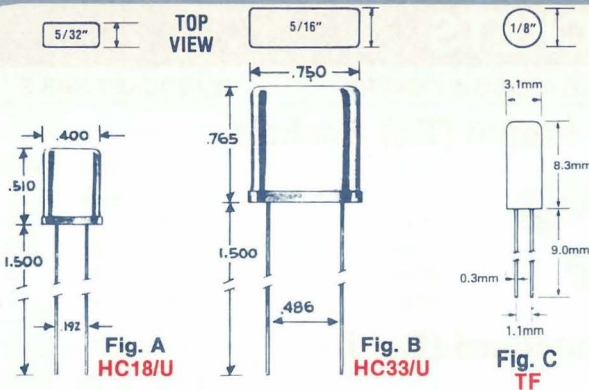
Wire Wrap Socket Rails — Level 1-3

| | | | | | |
|--------|-----|------------------|-----|-----|-----|
| RWW-7 | 7" | 24,28,36,40 | .35 | .29 | .25 |
| RWW-10 | 10" | 8,14,16,18,20,22 | .29 | .25 | .19 |

| | | | | | |
|-------|--|--|-----|------|-----|
| RRS-1 | (Rubber Rail Stops used to plug ends)..... | | .03 | .025 | .02 |
|-------|--|--|-----|------|-----|

CONDUCTIVE FOAM

| | | | | | |
|-------|--|------------|-------|--|-------------|
| NCF-1 | Conductive Foam (12" x 12" x 1/4") Hard Black. . . | \$6.95 ea. | NCF-2 | Conductive Foam (12" x 24" x 1/4") Hard Black. . . | \$11.95 ea. |
|-------|--|------------|-------|--|-------------|



CRYSTALS

"GENERAL PURPOSE" CALIBRATION AT AMBIENT TEMPERATURE (25°) IS WITHIN $\pm .005\%$ OF SPECIFIED FREQUENCY. *In the Case/Style column below, we have listed the case and style (series or parallel resonance) of the crystal. If it is parallel resonance, we have listed the load capacitance. For example:

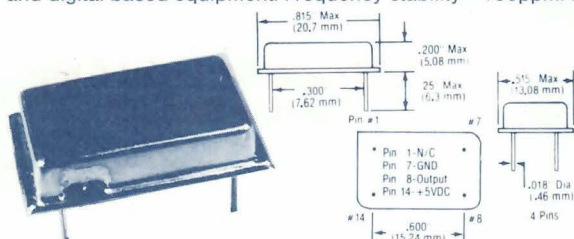
CY1A BP13 = HC/33U Parallel 13pF
 (Case) (Resonance) (Load Cap.)

Style: S = Series P = Parallel

| Part No. | Frequency | Use With: | *Case/ Style | 1-9 | 10+ |
|----------|-------------|---|-----------------|------|------|
| CY1A | 1.000MHz | F8,Z8,Z80,1802, MC6800,MC6860 | BP13 | 4.95 | 4.29 |
| CY1.84 | 1.8432MHz | MOT MC14411 | BP13 | 3.95 | 3.39 |
| CY2A | 2.000MHz | F8,CDP1802,6500/6800 Series | BP20 | 2.59 | 2.29 |
| CY2.01 | 2.010MHz | GI AY-3-8500-1 (1/4" Leads) | BS | 2.59 | 2.29 |
| CY2.45 | 2.4576MHz | 34702,IM6100C,F8 | BS | 2.59 | 2.29 |
| CY2.50 | 2.500MHz | Zilog Z80,IM6100,2650 | BS | 2.59 | 2.29 |
| CY3.27 | 3.2768MHz | Intersil 7205,IM6100C | AP15 | 2.59 | 2.29 |
| CY3.57 | 3.579545MHz | MM5369,IM6102,6801,6803 TV Color Burst Crystal | BP18 | 1.95 | 1.69 |
| CY3.68 | 3.6864MHz | MOT MC14411 | AS | 3.95 | 3.39 |
| CY4A | 4.000MHz | Z80A,4040,4201,Z8001/8002, 4004,Intersil 6100,8035,8048 | AP20 | 1.59 | 1.39 |
| CY4.19 | 4.194304MHz | ICM 7038A,7213,7049 | AP12 | 1.59 | 1.39 |
| CY4.91 | 4.9152MHz | Z80,Z80A,COM5026,5046 | AS | 1.59 | 1.39 |
| CY5A | 5.000MHz | MCP1600,1802,1803 | AP20 | 1.59 | 1.39 |
| CY5.068 | 5.0688MHz | COM5016/BR1941,5016T | AS | 1.59 | 1.39 |
| CY5.24 | 5.24288MHz | Intersil 7207 | AP20 | 1.59 | 1.39 |
| CY6A | 6.000MHz | CP1600,8035,8041,8048, 8049,8747,MCS48,Z80B | AS | 1.59 | 1.39 |
| CY6.14 | 6.144MHz | CP1600,P8085,8748 | AP30 | 1.59 | 1.39 |
| CY6.55 | 6.5536MHz | Intersil 7207,7045,7034 | AP20 | 1.59 | 1.39 |
| CY8A | 8.000MHz | CP1600,IM6100C,MC68000L8 TMS9980,8X300,MC6875 | AS | 1.59 | 1.39 |
| CY10A | 10.000MHz | TTL Micro Logic, 8086,8284 | AS | 1.59 | 1.39 |
| CY14.31 | 14.31818MHz | 4X Color Burst,8080,8224 | AS | 1.59 | 1.39 |
| CY16A | 16.000MHz | 8080,8008,8224,8284 | AS | 1.59 | 1.39 |
| CY18A | 18.000MHz | Intel 8080A,8008,8224 | AS | 2.19 | 1.89 |
| CY18.43 | 18.432MHz | 8080A,8008,8224,AM9080 | AS | 2.19 | 1.89 |
| CY19.66 | 19.6608MHz | 8080A,8008,8224 | AS | 2.19 | 1.89 |
| CY20A | 20.000MHz | Intel 8080/8008 | AS | 2.19 | 1.89 |
| CY22.11 | 22.1184MHz | AM9080,UCOM80, 8080A,TMS8080 | AS | 2.19 | 1.89 |
| CY32A | 32.000MHz | 8080,8008,8224,AM9080 | AS | 2.19 | 1.89 |
| NTF32.38 | 32.768KHz | Watches,MM58167AN | CP10.5 | 2.19 | 1.89 |
| CY36A | 36.000MHz | 8080,8008,8224,8080A | AS | 2.19 | 1.89 |
| CY48A | 48.000MHz | TMS9400,9404,SNLS362 | AS | 2.19 | 1.89 |
| SRX1504 | 49.435MHz | LM1872N | AP24 | 3.95 | 3.49 |
| SRX1505 | 49.890MHz | LM1871N | AS | 3.95 | 3.49 |

CRYSTAL CLOCK OSCILLATORS – TTL & CMOS

A single component oscillator utilizing a combination of thick film hybrid and quartz crystal technology. Suitable for use in computer and digital based equipment. Frequency stability ± 100 ppm. Input voltage: +5VDC, ± 0.5 VDC.



CMOS Crystal Clock Oscillators

| Part Number | Frequency | Current | 1-9 | 10+ |
|-------------|------------|---------|------|------|
| CMOS 1.000 | 1.000 MHz | 10mA | 7.49 | 6.49 |
| CMOS 2.000 | 2.000 MHz | 10mA | 7.49 | 6.49 |
| CMOS 4.000 | 4.000 MHz | 10mA | 7.49 | 6.49 |
| CMOS 8.000 | 8.000 MHz | 10mA | 7.49 | 6.49 |
| CMOS 10.000 | 10.000 MHz | 10mA | 7.49 | 6.49 |
| CMOS 12.000 | 12.000 MHz | 10mA | 7.49 | 6.49 |

TTL CRYSTAL CLOCK OSCILLATORS

| Part Number | Frequency | Current | 1-9 | 10+ |
|-------------|-------------|---------|------|------|
| OSC 1.000 | 1.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 1.843 | 1.8432 MHz | 20mA | 6.95 | 5.95 |
| OSC 2.000 | 2.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 4.000 | 4.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 8.000 | 8.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 10.000 | 10.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 16.000 | 16.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 18.432 | 18.4320 MHz | 20mA | 6.95 | 5.95 |
| OSC 19.660 | 19.6608 MHz | 20mA | 6.95 | 5.95 |
| OSC 20.000 | 20.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 32.000 | 32.0000 MHz | 20mA | 6.95 | 5.95 |
| OSC 32.768 | 32.7680 KHz | 20mA | 7.95 | 6.95 |

FANS



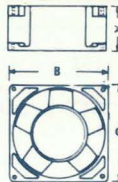
Muffin-Style Fan

The dependable, low cost, largest selling fan for commercial cooling applications.

- 105 cubic feet per minute free air delivery
- 4.68" square x 1.50" deep • Weight: 17 oz.
- Acoustical rating as low as NC-38 • More than ten years continuous duty at 20°C
- Impedance protected • For ambients 70°C
- Bearing: Sleeve • Volts: 115 50-60Hz
- Watts: 14



| PART NO. | DESCRIPTION | PRICE |
|----------|------------------------------------|---------|
| MU2A1-U | Fan, Cleaned & Tested (used) . . . | \$ 9.95 |
| MU2A1-N | Fan, New. | \$14.95 |
| MFG481 | Zinc plated steel wire. | \$ 1.95 |
| | finger guard | |



Sprite-Style Fan

- Delivers up to 32 cubic feet of air per minute typical
- Fan measures just 3.125" square x 1.665" deep • Performance against back pressure, 22cfm at .10", 28cfm at .08", 32cfm at .05" static pressure • Venturi and skeleton are die-cast aluminum alloy • Ideally suited to use in standard 3 1/2" high relay rack panels • Bearing: Sleeve (WS)
- Volts: 115VAC • Dimensions: A-1.665" B-3.125" C-3.125"



| PART NO. | DESCRIPTION | PRICE |
|----------|------------------------------------|---------|
| PWS2107U | Fan, Cleaned & Tested (used) . . . | \$ 9.95 |
| PWS2107F | Fan, New. | \$14.95 |
| SFG648 | Zinc plated steel wire. | \$ 1.79 |
| | finger guard | |

HEAT SINKS



For TO-220 Case

- Black Anodized
- 1-1/16"L x 3/8"W x 7/16"H
- Aluminum

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| 291-36H | .25 | .21 |



For TO-5 Case

- Black Anodized
- .72" x .250"
- Beryllium Copper
- Same as 2230B-5

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| 205-CB | .45 | .39 |



For TO-220 Case

- Black Anodized
- 1.00"W x 1-3/16"H x 1/2"D
- For SCR's or Linear IC's

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| 6030B | .39 | .35 |



For TO-3 Case

- Black Anodized
- .875"L x 1.56"H x .48"D
- Compact - Low Profile
- No. 671-3B - 1.40"L
- No. 672-3B - 2.00"L

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| 671-3B | .55 | .49 |
| 672-3B | .59 | .55 |



For TO-3 Case

- Black Anodized
- 1.81"L x 1.81"W x . . . "H
- #6001B-2 - .50"H
- #6004B-2 - 1.25"H

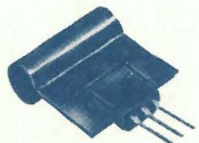
| Part No. | 1-9 | 10+ |
|----------|------|------|
| 6001B-2 | .99 | .89 |
| 6004B-2 | 1.49 | 1.29 |



For TO-3 Case

- Black Anodized
- 1 3/8"L x 1 3/8"W x 1 1/4"H

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| 690-TO3 | .89 | .75 |



For TO-202 Case

- Black Anodized
- .80"W x .85"H

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| THM6047 | .39 | .35 |



For TO-3 Cases

- Black Anodized or
- Clear Aluminum
- 1.88"L x 1.375"W x . . . "H

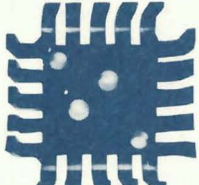
| Part No. | 1-9 | 10+ |
|----------|---------------------------------|---------|
| 6015C | Clear 1"H. | .69 .59 |
| 6016B | Black Anodized 1 1/4"H. | .75 .65 |



For TO-3/TO-220 Cases

- Black Anodized
- 1 1/8"L x 1 1/4"W x 1 1/4"H

| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| LAT0127B | .99 | .85 |



For TO-3 Case

- Black Anodized
- 1 3/4"L x 1 3/4"W x 1 1/4"H
- Material thickness: .062"

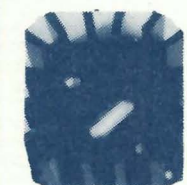
| Part No. | 1-9 | 10+ |
|----------|-----|-----|
| 6054B | .99 | .85 |



For TO-220 Case

- Black Anodized
- 1 3/4"L x 1 3/4"W x 1 1/4"H
- Material thickness: .062"
- Holds two TO-220 cases

| Part No. | 1-9 | 10+ |
|----------|------|-----|
| 6083 | 1.09 | .99 |



For TO-3 Case

- Black Anodized
- 1 3/4"L x 1 3/4"W x 1"H
- #680 - 1.00"H

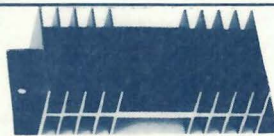
| Part No. | 1-9 | 10+ |
|----------|------|------|
| 680-1.00 | 1.29 | 1.19 |

500 Available!



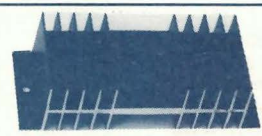
- Quality Aluminum (Black Anodized)
- 4"L x 2"W x 1-3/16"H (approximate size)
- For Rectifier Diodes

| Part No. | 1-9 | 10+ |
|-----------------|------|------|
| DUDE-2. | 1.95 | 1.75 |



- Quality Aluminum (Black Anodized)
- 4"L x 2"W x 1-3/16"H (approximate size)
- UNDRILLED - You Drill Your Own

| Part No. | 1-9 | 10+ |
|-----------------|------|------|
| DUDE-3. | 2.19 | 1.89 |



- Quality Aluminum (Black Anodized)
- 4"L x 2"W x 1-3/16"H (approximate size)
- Pre-drilled for a TO-3 Case

| Part No. | 1-9 | 10+ |
|-----------------|------|------|
| DUDE-4. | 2.39 | 2.19 |

DIODES

| Description | PART NO. | Cross-Ref. to ECG | Vz VOLTS | W | IZT mA | ZZT@IZT Ohms | PRICE | | |
|--------------------------------|----------|-------------------|----------|------|--------|--------------|-------|---------|---------|
| | | | | | | | 1-99 | 100-499 | 500-999 |
| ZENER DIODES DO-35 CASE | 1N746 | 5005A | 3.3 | 400m | 20 | 28 | 4/79 | .15 | .10 |
| | 1N751 | 5010A | 5.1 | 400m | 20 | 17 | 4/79 | .15 | .10 |
| | 1N752 | 136A | 5.6 | 400m | 20 | 11 | 4/79 | .15 | .10 |
| | 1N753 | 5013A | 6.2 | 400m | 20 | 7 | 4/79 | .15 | .10 |
| | 1N754 | 140A | 6.8 | 400m | 20 | 5 | 4/79 | .15 | .10 |
| | 1N757 | 5018A | 9.0 | 400m | 20 | 6 | 4/79 | .15 | .10 |
| | 1N759 | 5021A | 12.0 | 400m | 20 | 30 | 4/79 | .15 | .10 |
| | 1N959 | 5016A | 8.2 | 400m | 20 | 15 | 4/89 | .17 | .15 |
| | 1N965 | 5024A | 15.0 | 400m | 8.5 | 16 | 4/89 | .17 | .15 |
| | 1N5232 | 5011A | 5.6 | 500m | 20 | 11 | 4/85 | .16 | .11 |
| | 1N5235 | 5014A | 6.8 | 500m | 20 | 5 | 4/85 | .16 | .11 |
| | 1N5236 | 5015A | 7.5 | 500m | 20 | 6 | 4/85 | .16 | .11 |
| | 1N5242 | 5021A | 12.0 | 500m | 20 | 30 | 4/85 | .16 | .11 |
| | 1N5245 | 5024A | 15.0 | 500m | 8.5 | 16 | 4/85 | .16 | .11 |
| | 1N4733 | 135A | 5.1 | 1w | 49 | 7 | 4/85 | .16 | .11 |
| | 1N4734 | 136A | 5.6 | 1w | 45 | 5 | 4/85 | .16 | .11 |
| 1 WATT ZENER DO-41 CASE | 1N4735 | 137A | 6.2 | 1w | 41 | 2 | 4/85 | .16 | .11 |
| | 1N4736 | 5071A | 6.8 | 1w | 37 | 3.5 | 4/85 | .16 | .11 |
| | 1N4738 | 5072A | 8.2 | 1w | 31 | 4.5 | 4/85 | .16 | .11 |
| | 1N4742 | 142A | 12.0 | 1w | 21 | 9 | 4/85 | .16 | .11 |
| | 1N4744 | 145A | 15.0 | 1w | 17 | 14 | 4/85 | .16 | .11 |



| Description | PART NO. | Cross-Ref. to ECG | PIV V | if A | CASE | PRICE | | | |
|---|----------------|----------------------|----------|---------|----------------|--------------------------|---------|---------|-------|
| | | | | | | 1-99 | 100-499 | 500-999 | |
| SWITCHING DIODE | 1N3600 | 519 | 50 | 200m | DO-35 | } Similar to DO-41 | 6/ .59 | .08 | .06 |
| | 1N4148 (1N914) | 519 | 75 | 10m | DO-35 | | 15/ .89 | .05 | .03 |
| | 1N4154 | 519 | 35 | 10m | DO-35 | | 12/1.00 | .07 | .06 |
| General Purpose DIODE | 1N456 | 177 | 25 | 40m | DO-7 | } Similar to DO-41 | 6/1.00 | .14 | .12 |
| | 1N458 | 177 | 150 | 7m | DO-7 | | 6/1.00 | .14 | .12 |
| | 1N485 | 177 | 180 | 10m | DO-7 | | 5/ .89 | .15 | .12 |
| 1 AMP/3 AMP SILICON RECTIFIERS | 1N4001 | 116 | 50PIV | 1 AMP | DO-41 | | 12/1.00 | .07 | .06 |
| | 1N4002 | 116 | 100PIV | 1 AMP | DO-41 | | 12/1.09 | .08 | .06 |
| | 1N4003 | 116 | 200PIV | 1 AMP | DO-41 | | 12/1.19 | .09 | .07 |
| | 1N4004 | 116 | 400PIV | 1 AMP | DO-41 | | 12/1.29 | .10 | .08 |
| | 1N4005 | 116 | 600PIV | 1 AMP | DO-41 | | 10/1.09 | .10 | .08 |
| | 1N4006 | 125 | 800PIV | 1 AMP | DO-41 | | 10/1.19 | .11 | .09 |
| | 1N4007 | 125 | 1000PIV | 1 AMP | DO-41 | | 10/1.29 | .12 | .10 |
| | 1N5400 | 5800 | 50PIV | 3 AMP | DO-201A | | 3/ .59 | .17 | .15 |
| | 1N5401 | 156 | 100PIV | 3 AMP | DO-201A | | 3/ .69 | .20 | .18 |
| | 1N5402 | 5802 | 200PIV | 3 AMP | DO-201A | | 3/ .79 | .23 | .21 |
| | 1N5404 | 5804 | 400PIV | 3 AMP | DO-201A | | 3/ .89 | .27 | .24 |
| | 1N5406 | 5806 | 600PIV | 3 AMP | DO-201A | | 3/1.09 | .30 | .27 |
| | 1N5408 | 5809 | 1000PIV | 3 AMP | DO-201A | | 3/1.29 | .35 | .29 |
| 12 AMP/35 AMP 275 AMP STUD RECTIFIERS | 1N1183 | 5980 | 50PIV | 35 AMP | DO-5 | } Similar to DO-5 | 1.60 | 1.30 | 1.10 |
| | 1N1184 | 5982 | 100PIV | 35 AMP | DO-5 | | 1.70 | 1.40 | 1.20 |
| | 1N1185 | 5986 | 150PIV | 35 AMP | DO-5 | | 1.80 | 1.50 | 1.30 |
| | 1N1186 | 5986 | 200PIV | 35 AMP | DO-5 | | 1.90 | 1.60 | 1.40 |
| | 1N1188 | 5990 | 400PIV | 35 AMP | DO-5 | | 3.00 | 2.30 | 1.95 |
| | 1N1199A | 5870 | 50PIV | 12 AMP | DO-4 | | .79 | .69 | .59 |
| | 1N1200A | 5872 | 100PIV | 12 AMP | DO-4 | | .99 | .89 | .79 |
| | 1N1204A | 5878 | 400PIV | 12 AMP | DO-4 | | 1.49 | 1.35 | 1.19 |
| | 1N4044 | 6354 | 50PIV | 275 AMP | DO-9 | | 8.95 | 6.95 | 5.95 |
| | 1N4047 | 6354 | 200PIV | 275 AMP | DO-9 | | 11.95 | 9.95 | 8.79 |
| | 1N4050 | 6354 | 400PIV | 275 AMP | DO-9 | | 14.95 | 12.95 | 11.79 |
| Silicon Controlled Rectifier (SCR) FW BRIDGE RECTIFIERS AND TRIACS | C106B1 | 5455 | 200V | 3.6A | SCR(2N6239) | TO-202 | .50 | .40 | .35 |
| | C38B | 5543 | 200V | 35A | SCR(2N3898) | DO-5 | 2.49 | 2.19 | 1.95 |
| | C38M | 5547 | 600V | 35A | SCR(2N3899) | DO-5 | 3.59 | 3.19 | 2.79 |
| | C122B | 5463 | 200V | 8A | SCR | TO-220 | 1.05 | .90 | .75 |
| | C122D | 5465 | 400V | 8A | SCR | TO-220 | 1.39 | 1.25 | 1.09 |
| | C122M | | 600V | 8A | SCR | TO-220 | 1.85 | 1.70 | 1.55 |
| | MDA 990-1 | | 50V | 12A | FW Bridge Rec. | 179-01 | 1.95 | 1.65 | 1.45 |
| | MDA 990-3 | 5322 | 200V | 12A | FW Bridge Rec. | 179-01 | 2.25 | 1.95 | 1.75 |
| | MDA 990-6 | (MDA2506) | 600V | 25A | FW Bridge Rec. | 179-01 | 3.95 | 3.49 | 2.95 |
| | SC146B | 5633 | 200V | 10A | TRIAC(2N6342) | TO-220 | 1.25 | 1.10 | .95 |
| | SC146D | 5635 | 400V | 10A | TRIAC(2N6343) | TO-220 | 1.80 | 1.65 | 1.50 |
| | SC146M | | 600V | 10A | TRIAC(2N6344) | TO-220 | 2.50 | 2.25 | 2.00 |

TRANSISTORS

| Part No. | Cross-Ref. to ECG | ★ Type Case | BVCEO Min. | VCE (Sat.) Max. | hFE Min-Max | PRICE | | | Part No. | Cross-Ref. to ECG | ★ Type Case | BVCEO Min. | VCE (Sat.) Max. | hFE Min-Max | PRICE | | |
|-----------|-------------------|----------------|------------|-----------------|-------------|-------------|---------|------|----------|-------------------|----------------|------------|-----------------|-------------|-------|---------|------|
| | | | | | | 1-99 | 100-499 | 500+ | | | | | | | 1-99 | 100-499 | 500+ |
| 4N25-4N33 | Photo-Transistors | | | | | See Page 39 | | | 2N3702 | 159 | 16 | 40 | .25 | 60-300 | 4/.75 | .16 | .14 |
| MPSA05 | 123AP | B6 | 60 | .25 | 50-150 | 3/.69 | .19 | .16 | 2N3704 | 123AP | F6 | 30 | .6 | 100-300 | 4/.75 | .16 | .14 |
| MPSA06 | 128 | B6 | 80 | .25 | 50-150 | 3/.69 | .19 | .16 | 2N3705 | 123AP | F6 | 30 | .8 | 50-150 | 4/.75 | .16 | .14 |
| TIP29A | 152 | M9 | 60 | .7 | 15-150 | .49 | .39 | .34 | 2N3706 | 123AP | F6 | 40 | 1 | 30-600 | 4/.75 | .16 | .14 |
| TIP30A | 153 | D9 | -60 | -.7 | 15-150 | .49 | .39 | .34 | 2N3711 | 123AP | K6 | 30 | 1 | 180-660 | 4/.75 | .16 | .14 |
| TIP31A | 152 | M9 | 60 | 1.2 | 10-50 | .55 | .43 | .39 | 2N3724 | 235 | G2 | 30 | .25 | 60-150 | .75 | .59 | .53 |
| TIP32A | 153 | D9 | -60 | -1.20 | 10-50 | .75 | .59 | .53 | 2N3725 | 128 | G2 | 50 | .25 | 60-150 | .95 | .75 | .67 |
| TIP41A | 331 | M9 | 60 | 2.0 | 15-150 | .99 | .79 | .69 | 2N3772 | 181 | M1 | 150W | 30A | 15-60 | 1.49 | 1.19 | 1.05 |
| TIP42A | 332 | D9 | -60 | -2.0 | 15-150 | 1.15 | .89 | .79 | 2N3823 | 133 | L5 | FET | 30V | 4-20 | .89 | .69 | .62 |
| TIP101 | -- | N9 | 80 | 2.0 | 1K/20K | 1.09 | .85 | .77 | 2N3903 | 123AP | A6 | 60 | .3 | 50-150 | 4/.65 | .13 | .11 |
| TIP102 | -- | N9 | 100 | 2.0 | 1K/20K | 1.19 | .99 | .93 | 2N3904 | 123AP | A6 | 40 | .3 | 100-300 | 4/.65 | .13 | .11 |
| TIP106 | -- | O9 | -80 | -2.0 | 1K/20K | 1.49 | 1.19 | 1.05 | 2N3905 | 159 | E6 | 40 | .25 | 50-150 | 4/.65 | .13 | .11 |
| TIP120 | 261 | N9 | 60 | 3.0 | 500 min. | .99 | .79 | .69 | 2N3906 | 159 | E6 | 40 | .25 | 100-300 | 4/.65 | .13 | .11 |
| TIP125 | 262 | O9 | -60 | -4.0 | 1000 min. | .75 | .59 | .53 | 2N4013 | 123AP | G3 | 30 | .25 | 30-150 | .69 | .55 | .49 |
| TIS97 | 107 | K6 | 40 | 1 | 250-700 | .39 | .32 | .28 | 2N4123 | 123AP | A6 | 30 | .3 | 50-150 | 4/.65 | .13 | .11 |
| TIS98 | 107 | K6 | 60 | 1 | 100-300 | .45 | .35 | .32 | 2N4124** | 123AP | A6 | 25 | .3 | 120-360 | 4/.65 | .13 | .11 |
| 2N918 | 108 | C5 | 15 | .4 | 20 | .65 | .49 | .44 | 2N4125** | 159 | E6 | 30 | .4 | 50-100 | 4/.65 | .13 | .11 |
| 2N2219A | 123AP | F2 | 40 | .3 | 100-200 | 2/.79 | .32 | .28 | 2N4249 | 159 | J8 | 60 | .25 | 100-300 | 4/.69 | .14 | .13 |
| 2N2221A | 123AP | F3 | 40 | .3 | 40-120 | 3/1.00 | .31 | .28 | 2N4400 | 123AP | F6 | 40 | .4 | 50-150 | 4/.65 | .13 | .11 |
| PN2222 | 123AP | F6 | 40 | .3 | 100-300 | 6/1.00 | .14 | .12 | 2N4401 | 123AP | F6 | 40 | .4 | 100-300 | 4/.65 | .13 | .11 |
| 2N2222A | 123AP | F3 | 40 | .3 | 100-300 | 3/1.00 | .31 | .28 | 2N4402 | 159AP | I6 | 40 | .4 | 50-150 | 4/.65 | .13 | .11 |
| MPS2369 | 107 | H6 | 15 | .25 | 20-120 | 4/.75 | .16 | .14 | 2N4403 | 159AP | I6 | 40 | .4 | 50-150 | 4/.65 | .13 | .11 |
| 2N2484 | 123AP | K3 | 60 | .35 | 100-500 | 3/1.00 | .29 | .25 | 2N4409 | 194 | K6 | 50 | .2 | 60-400 | 4/.65 | .13 | .11 |
| 2N2906A | 159 | I3 | 60 | .4 | 40-120 | 2/.89 | .35 | .32 | 2N5086 | 159 | J6 | 50 | .3 | 150-500 | 4/.75 | .16 | .14 |
| PN2907 | 159 | I6 | 60 | .4 | 100-300 | 6/1.00 | .14 | .12 | 2N5087 | 159 | J6 | 50 | .3 | 250-800 | 4/.69 | .14 | .13 |
| 2N2907A | 159 | I3 | 60 | .4 | 100-300 | 3/1.00 | .31 | .28 | 2N5088 | 123AP | K6 | 30 | .5 | 300-900 | 4/.69 | .14 | .13 |
| 2N2925 | 123AP | A6 | 25 | .3 | 150-300 | 4/.89 | .19 | .16 | 2N5089 | 123AP | K6 | 35 | .5 | 400-1200 | 4/.69 | .14 | .13 |
| MJE2955T | 183 | D9 | 60 | 1.1 | 20-70 | .89 | .69 | .62 | 2N5129 | 128 | A6 | 12 | .25 | 20-250 | 4/.65 | .13 | .11 |
| 2N3053 | 128 | B4 | 40 | 1.4 | 25-150 | 2/1.00 | .39 | .34 | PN5134 | 123AP | H6 | 10 | .25 | 20-150 | 4/.65 | .13 | .11 |
| MJE3055T | 182 | M9 | 60V | 50W | 20hFE | .89 | .69 | .62 | PN5138 | 159 | E6 | 30 | .3 | 50-800 | 4/.65 | .13 | .11 |
| 2N3055 | 181 | M1 | 60V | 115W | 20-70 | .65 | .49 | .45 | 2N5139 | 193 | E8 | 20 | .5 | 40-350 | 4/.65 | .13 | .11 |
| 2N3398 | 123AP | A6 | 25 | -- | 55-800 | 4/.89 | .19 | .16 | 2N5210 | 123 | K6 | 50 | .7 | 200-600 | 4/.69 | .14 | .13 |
| 2N3567 | 128 | B7 | 40 | .25 | 40-300 | 3/1.00 | .31 | .28 | 2N5771 | 194 | P6 | 4.5 | .18 | 50-120 | .69 | .55 | .48 |
| PN3568 | 128 | B6 | 60 | .25 | 40-300 | 4/.65 | .13 | .11 | 2N5951 | 312 | L6 | FET | 30V | 360-500 | .49 | .39 | .35 |
| PN3569 | 128 | B6 | 40 | .25 | 100-300 | 4/.89 | .19 | .16 | 40409 | 128 | M2 | 90V | 3W | -- | 1.59 | 1.29 | 1.15 |
| 2N3638A | 159 | I6 | 25 | .25 | 20-100 | 3/1.00 | .29 | .25 | 40410 | 129 | D2 | 90V | 3W | -- | 1.59 | 1.29 | 1.15 |
| MPS3640 | 159 | P6 | 12 | .2 | 30-120 | 6/1.00 | .15 | .14 | 40673 | 222 | L5 | MOS FET | | | 1.89 | 1.55 | 1.35 |

**CUT AND FORMED LEADS

*TYPE / CASE CODE

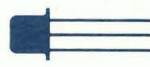
- A** NPN General Purpose Amp and Switch to 100mA
B NPN Medium Power Amp and Switch
C NPN General Purpose High Frequency
D PNP Power Transistor
E PNP General Purpose Amp and Switch to 100mA
F NPN General Purpose Amp and Switch to 500mA
G Switch to 1 Amp
H NPN Saturated Switch to 100mA
I PNP General Purpose amp and Switch to 500mA
J PNP Low Level — High Gain 50-100mA
K NPN Low Noise — Low Level — High Gain to 100mA
L Field Effect Transistors (N Channel)
M NPN Power Transistor
N NPN Power Darlington
O PNP Power Darlington
P PNP Saturated Switch to 100mA



1 TO-3 CASE



2 TO-5 CASE



3 TO-18 CASE



4 TO-39 CASE



5 TO-72 CASE



6 TO-92 CASE



7 TO-105 CASE



8 TO-106 CASE



9 TO-220 CASE

CARBON FILM RESISTORS

STANDARD 1/4 WATT RESISTANCE VALUES 5%

| OHMS | OHMS | OHMS | OHMS | OHMS | OHMS | OHMS | OHMS | OHMS | OHMS |
|------|------|------|------|------|------|------|------|------|------|
| 2.2 | 11 | 51 | 240 | 1.1K | 5.1K | 24K | 110K | 510K | 2.4M |
| 2.4 | 12 | 56 | 270 | 1.2K | 5.6K | 27K | 120K | 560K | 2.7M |
| 2.7 | 13 | 62 | 300 | 1.3K | 6.2K | 30K | 130K | 620K | 3.0M |
| 3.0 | 15 | 68 | 330 | 1.5K | 6.8K | 33K | 150K | 680K | 3.3M |
| 3.3 | 16 | 75 | 360 | 1.6K | 7.5K | 36K | 160K | 750K | 3.6M |
| 3.6 | 18 | 82 | 390 | 1.8K | 8.2K | 39K | 180K | 820K | 3.9M |
| 3.9 | 20 | 91 | 430 | 2.0K | 9.1K | 43K | 200K | 910K | 4.3M |
| 4.3 | 22 | 100 | 470 | 2.2K | 10K | 47K | 220K | 1.0M | 4.7M |
| 4.7 | 24 | 110 | 510 | 2.4K | 11K | 51K | 240K | 1.1M | 5.1M |
| 5.1 | 27 | 120 | 560 | 2.7K | 12K | 56K | 270K | 1.2M | 5.6M |
| 5.6 | 30 | 130 | 620 | 3.0K | 13K | 62K | 300K | 1.3M | 6.2M |
| 6.2 | 33 | 150 | 680 | 3.3K | 15K | 68K | 330K | 1.5M | 6.8M |
| 6.8 | 36 | 160 | 750 | 3.6K | 16K | 75K | 360K | 1.6M | 7.5M |
| 7.5 | 39 | 180 | 820 | 3.9K | 18K | 82K | 390K | 1.8M | 8.2M |
| 8.2 | 43 | 200 | 910 | 4.3K | 20K | 91K | 430K | 2.0M | 9.1M |
| 9.1 | 47 | 220 | 1.0K | 4.7K | 22K | 100K | 470K | 2.2M | 10M |
| 10 | | | | | | | | | |

MUST BE ORDERED IN INCREMENTS OF 5 EACH PER VALUE

| | | QUANTITY | PRICING |
|------------------------------|--|---|------------------|
| 5 PIECES PER VALUE | *ALL VALUES MIXED IN ONE PACKAGE UNLESS OTHERWISE SPECIFIED | 5 to 495 pieces | \$.06 each |
| | | 500 to 995 pieces | \$.05 each |
| | | 1000 or more pieces | \$.04 each |
| | | *INDIVIDUAL PACKAGING FOR LESS THAN 100 PIECES — \$.05 PER VALUE | |
| 100 PIECES PER VALUE | COST INCLUDES INDIVIDUAL PACKAGING PER VALUE | 100 to 2400 pieces | \$2.50 per 100 |
| | | 2500 to 4900 pieces | \$2.00 per 100 |
| | | 5000 or more pieces | \$1.80 per 100 |
| 1000 PIECES PER VALUE | COST INCLUDES INDIVIDUAL PACKAGING PER VALUE | 1000 to 9000 pieces | \$14.00 per 1000 |
| | | 10,000 to 24,000 pieces | \$13.00 per 1000 |
| | | 25,000 or more pieces | \$12.00 per 1000 |

— VALUES MAY BE COMBINED (IN EACH SECTION ONLY) FOR THE BEST QUANTITY PRICE —

RESISTOR ASSORTMENTS

50-Piece — 1/4 Watt — 5%

| Part No. | | Price |
|----------------|--|---------------|
| ASST. 1 | 5 each 10 OHM — 12 OHM — 15 OHM — 18 OHM — 22 OHM 27 OHM — 33 OHM — 39 OHM — 47 OHM — 56 OHM | \$1.95 |
| ASST. 2 | 5 each 68 OHM — 82 OHM — 100 OHM — 120 OHM — 150 OHM 180 OHM — 220 OHM — 270 OHM — 330 OHM — 390 OHM | \$1.95 |
| ASST. 3 | 5 each 470 OHM — 560 OHM — 680 OHM — 820 OHM — 1K 1.2K — 1.5K — 1.8K — 2.2K — 2.7K | \$1.95 |
| ASST. 4 | 5 each 3.3K — 3.9K — 4.7K — 5.6K — 6.8K 8.2K — 10K — 12K — 15K — 18K | \$1.95 |
| ASST. 5 | 5 each 22K — 27K — 33K — 39K — 47K 56K — 68K — 82K — 100K — 120K | \$1.95 |
| ASST. 6 | 5 each 150K — 180K — 220K — 270K — 330K 390K — 470K — 560K — 680K — 820K | \$1.95 |
| ASST. 7 | 5 each 1M — 1.2M — 1.5M — 1.8M — 2.2M 2.7M — 3.3M — 3.9M — 4.7M — 5.6M | \$1.95 |

ASST. 8R 350 pcs. Includes Assortments 1-7 shown above **\$9.95**
(Each Assortment is individually packaged)
(Regular Price \$13.65 — SAVE \$3.70)

STANDARD RESISTOR COLOR CODE

COLOR BAND SYSTEM



Tolerance on:
No. 4 band
No Band, $\pm 20\%$
Silver, $\pm 10\%$
Gold, $\pm 5\%$

1st and 2nd Band 3rd Band

0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Blue
7 Violet
8 Grey
9 White

MULTIPLIER

| Color | Multiplier |
|--------|------------|
| Black | 1 |
| Brown | 10 |
| Red | 100 |
| Orange | 1,000 |
| Yellow | 10,000 |
| Green | 100,000 |
| Blue | 1,000,000 |
| Silver | 0.01 |
| Gold | 0.1 |

VARIABLE RESISTORS

- 1/2 Watt @ 70°C – (–55°C to +125°C) ± 10% Tolerance
- PC Pins: .100" grid (2.54mm) TO-5 Grid
- Sealed to guard against contaminants



STANDARD RESISTANCE VALUES

— Please Specify Value When Ordering —

50Ω 100Ω 500Ω 1K 2K 5K 10K 20K 50K 100K 200K 500K 1Meg

| | | PRICING | | |
|-------------|--------------------|---------|--------|--------|
| PART NO. | RESISTANCES (OHMS) | 1-24 | 25-99 | 100 + |
| 63P-(value) | 50Ω — 1 Meg | \$.99 | \$.89 | \$.79 |

- 3/4 Watt @ 70°C – (–55°C to +125°C) ± 10% Tolerance
- PC Pins: .100" grid (2.54mm)
- Sealed to guard against contaminants



STANDARD RESISTANCE VALUES

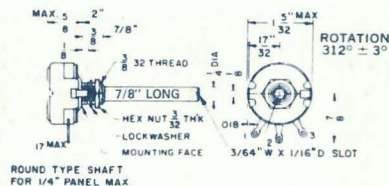
— Please Specify Value When Ordering —

50Ω 100Ω 500Ω 1K 2K 5K 10K 20K 50K 100K 200K 500K 1Meg

| | | PRICING | | |
|-------------|--------------------|---------|--------|--------|
| PART NO. | RESISTANCES (OHMS) | 1-24 | 25-99 | 100 + |
| 43P-(value) | 50Ω — 1 Meg | \$1.05 | \$.95 | \$.85 |

7/8" Slotted Shaft (CMW) 2W @ 70°C Ambient — ±10% Tolerance
Meets MIL-R-94 (—55°C to +120°C) **PRICING**

| PART NO. | MILITARY NO. | OHMS | 1-24 | 25-99 | 100 + |
|----------|----------------|------|--------|--------|--------|
| CMU1021 | RV4N-AYSD-102A | 1K | \$3.25 | \$2.95 | \$2.75 |
| CMU5021 | RV4N-AYSD-502A | 5K | 3.25 | 2.95 | 2.75 |
| CMU1031 | RV4N-AYSD-103A | 10K | 3.25 | 2.95 | 2.75 |
| CMU2531 | RV4N-AYSD-253A | 25K | 3.25 | 2.95 | 2.75 |
| CMU5031 | RV4N-AYSD-503A | 50K | 3.25 | 2.95 | 2.75 |
| CMU1041 | RV4N-AYSD-104A | 100K | 3.25 | 2.95 | 2.75 |
| CMU1052 | RV4N-AYSD-105A | 1MEG | 3.25 | 2.95 | 2.75 |



STANDARD RESISTANCE VALUES
— Please Specify Values When Ordering —

100Ω 500Ω 1K 2K 5K 10K 20K 50K 100K 200K 1Meg

| | | PRICING | |
|--------------|--------------------|---------|--------|
| Part No. | Resistances (Ohms) | 1-99 | 100 + |
| TR11-(value) | 100Ω — 1 Meg | \$.25 | \$.21 |



1/4 Watt — Single Turn — Top Adjustment $\pm 20\%$
Pin Spacing .172 \pm .01 (2 places) .344 overall

STANDARD RESISTANCE VALUES
— Please Specify Values When Ordering —

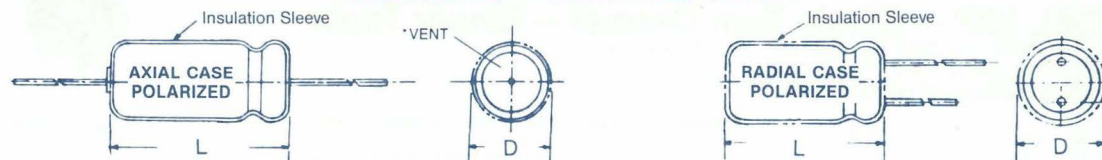
500Ω 1K 2.5K 5K 10K 25K 50K 100K 250K 500K 5Meg

| | | PRICING | |
|-------------|---------------------|---------|--------|
| Part No. | Resistances (Ohms) | 1-99 | 100 + |
| Bourns 3355 | 500 Ω — 5Meg | \$.29 | \$.25 |

| | | |
|-------|-------------------------|--------|
| GB174 | 25 each Assorted Values | \$2.00 |
|-------|-------------------------|--------|

CAPACITORS

ELECTROLYTIC — MINIATURE ALUMINUM



AXIAL LEAD ELECTROLYTIC

| Capacitance MFD | Working DC Voltage | Surge DC Voltage | Case | APPROXIMATE DIMENSIONS | | PART NO. | PRICE | | |
|--------------------|-----------------------|---------------------|-------|---------------------------|-------|----------|-------|---------|------|
| | | | | L | D | | 1-99 | 100-499 | 500+ |
| .47* | 50 | 63 | Axial | .492" | .205" | A.47/50 | .16 | .14 | .10 |
| 1 | 16 | 20 | Axial | .488" | .205" | A1/16 | .17 | .14 | .10 |
| 1* | 50 | 63 | Axial | .488" | .205" | A1/50 | .19 | .16 | .12 |
| 3.3* | 50 | 63 | Axial | .488" | .205" | A3.3/50 | .17 | .15 | .11 |
| 4.7* | 50 | 63 | Axial | .622" | .323" | A4.7/50 | .19 | .16 | .12 |
| 10 | 25 | 32 | Axial | .492" | .244" | A10/25 | .18 | .15 | .11 |
| 10* | 50 | 63 | Axial | .622" | .323" | A10/50 | .19 | .16 | .12 |
| 22* | 50 | 63 | Axial | .630" | .236" | A22/50 | .24 | .20 | .18 |
| 47 | 16 | 20 | Axial | .622" | .323" | A47/16 | .24 | .20 | .18 |
| 47 | 25 | 32 | Axial | .630" | .236" | A47/25 | .25 | .21 | .19 |
| 47* | 50 | 63 | Axial | .630" | .315" | A47/50 | .29 | .25 | .23 |
| 100 | 25 | 32 | Axial | .630" | .315" | A100/25 | .28 | .24 | .22 |
| 100* | 50 | 63 | Axial | .787" | .315" | A100/50 | .41 | .37 | .34 |
| 220 | 25 | 32 | Axial | .987" | .315" | A220/25 | .39 | .34 | .33 |
| 220* | 50 | 63 | Axial | .984" | .394" | A220/50 | .49 | .45 | .41 |
| 470 | 16 | 20 | Axial | .787" | .394" | A470/16 | .45 | .41 | .37 |
| 470 | 25 | 32 | Axial | .984" | .394" | A470/25 | .54 | .49 | .45 |
| 470* | 50 | 63 | Axial | .984" | .512" | A470/50 | .85 | .75 | .65 |
| 1000 | 16 | 20 | Axial | 1.240" | .394" | A1000/16 | .79 | .69 | .61 |
| 1000* | 25 | 32 | Axial | .984" | .514" | A1000/25 | .85 | .75 | .65 |
| 2200* | 16 | 20 | Axial | 1.594" | .512" | A2200/16 | .89 | .79 | .69 |

AXIAL ELECTROLYTIC CAPACITOR ASSORTMENT — 60 PIECES

(5 each of 12 values as marked [*] above) — Individually packaged

REGULAR PRICE: \$24.60 — SAVE \$9.65 (39% SAVINGS) AXIAL 60 — \$14.95

RADIAL LEAD ELECTROLYTIC

| | | | | | | | | | |
|--------|----|----|--------|--------|-------|----------|-----|-----|-----|
| .47** | 50 | 63 | Radial | .433" | .315" | R.47/50 | .16 | .14 | .13 |
| 1 | 25 | 32 | Radial | .413" | .205" | R1/25 | .16 | .14 | .13 |
| 1** | 50 | 63 | Radial | .433" | .205" | R1/50 | .17 | .15 | .14 |
| 4.7 | 25 | 32 | Radial | .413" | .205" | R4.7/25 | .16 | .14 | .13 |
| 4.7** | 50 | 63 | Radial | .433" | .283" | R4.7/50 | .17 | .15 | .14 |
| 10** | 50 | 63 | Radial | .453" | .236" | R10/50 | .17 | .15 | .14 |
| 47 | 25 | 32 | Radial | .500" | .375" | R47/25 | .21 | .17 | .15 |
| 47** | 50 | 63 | Radial | .807" | .520" | R47/50 | .25 | .21 | .19 |
| 100 | 16 | 20 | Radial | .512" | .402" | R100/16 | .21 | .17 | .14 |
| 100 | 25 | 32 | Radial | .787" | .402" | R100/25 | .25 | .23 | .21 |
| 100** | 50 | 63 | Radial | 1.240" | .520" | R100/50 | .37 | .34 | .31 |
| 220** | 16 | 20 | Radial | .492" | .315" | R220/16 | .25 | .21 | .19 |
| 220 | 25 | 32 | Radial | .750" | .500" | R220/25 | .27 | .23 | .21 |
| 470 | 16 | 20 | Radial | .750" | .500" | R470/16 | .31 | .27 | .23 |
| 470** | 25 | 32 | Radial | .984" | .630" | R470/25 | .35 | .31 | .27 |
| 1000** | 16 | 20 | Radial | 1.240" | .520" | R1000/16 | .55 | .50 | .45 |

RADIAL ELECTROLYTIC CAPACITOR ASSORTMENT — 45 PIECES

(5 each of 9 values as marked [**] above) — Individually packaged

REGULAR PRICE: \$12.20 — SAVE \$4.25 (35% SAVINGS) RADIAL 45 — \$ 7.95

CAPACITORS

DIPPED TANTALUM CAPACITORS

± 20% Dipped (Solid) Polarized

| Part No. | Value | Volts | 1-9 | 10-99 | 100+ |
|------------|-------|-------|------|-------|------|
| *TM .1/35 | .1mf | 35V | .25 | .19 | .15 |
| *TM .15/35 | .15mf | 35V | .25 | .19 | .15 |
| *TM .22/35 | .22mf | 35V | .25 | .19 | .15 |
| *TM .33/35 | .33mf | 35V | .25 | .19 | .15 |
| *TM .47/35 | .47mf | 35V | .25 | .19 | .15 |
| *TM .68/35 | .68mf | 35V | .25 | .19 | .15 |
| *TM 1/35 | 1 mf | 35V | .29 | .24 | .19 |
| *TM 1.5/35 | 1.5mf | 35V | .29 | .24 | .19 |
| *TM 2.2/35 | 2.2mf | 35V | .32 | .26 | .21 |
| TM 3.3/25 | 3.3mf | 25V | .35 | .29 | .23 |
| *TM 3.3/35 | 3.3mf | 35V | .45 | .39 | .31 |
| TM 4.7/25 | 4.7mf | 25V | .35 | .29 | .25 |
| *TM 4.7/35 | 4.7mf | 35V | .45 | .39 | .31 |
| *TM 6.8/35 | 6.8mf | 35V | .49 | .43 | .35 |
| TM 10/25 | 10mf | 25V | .59 | .49 | .39 |
| *TM 10/35 | 10mf | 35V | .69 | .59 | .49 |
| TM 15/25 | 15mf | 25V | .69 | .59 | .49 |
| TM 22/6 | 22mf | 6V | .45 | .39 | .31 |
| TM 33/25 | 33mf | 25V | 2.29 | 1.95 | 1.79 |
| TM 47/25 | 47mf | 25V | 2.95 | 2.69 | 2.29 |
| TM 100/6 | 100mf | 6V | 1.75 | 1.49 | 1.29 |

TANTALUM CAPACITOR ASSORTMENT — 65 PIECES
(5 ea. 13 values as marked [*] above) indiv. packaged
Reg. Price \$22.40 — SAVE \$4.45 #TANT-65 \$17.95

CAPACITOR CODE

1 0 4 = 100000 . pf or .1 mfd
(move decimal 6 places to left to convert to microfarads)
Multiplier (add zeros to get value in picofarads)
2nd Sig. Fig.
1st Sig. Fig.

DISC CAPACITORS

+80 — 20% Ceramic

| Part No. | Value | Volts | 1-49 | 50-499 | 500+ |
|-------------|---------|-------|------|--------|------|
| DC 10/50 | 10pf | 50V | .08 | .06 | .05 |
| DC 22/50 | 22pf | 50V | .08 | .06 | .05 |
| DC 39/50 | 39pf | 50V | .08 | .06 | .05 |
| DC 47/50 | 47pf | 50V | .08 | .06 | .05 |
| DC 68/50 | 68pf | 50V | .08 | .06 | .05 |
| DC 100/50 | 100pf | 50V | .08 | .06 | .05 |
| DC 220/50 | 220pf | 50V | .08 | .06 | .05 |
| DC 330/50 | 330pf | 50V | .08 | .06 | .05 |
| DC 470/50 | 470pf | 50V | .08 | .06 | .05 |
| DC .001/50 | .001mf | 50V | .08 | .06 | .05 |
| DC .0047/50 | .0047mf | 50V | .08 | .06 | .05 |
| DC .01/50 | .01mf | 50V | .08 | .06 | .05 |
| DC .022/50 | .022mf | 50V | .09 | .07 | .06 |
| DC .033/50 | .033mf | 50V | .09 | .07 | .06 |
| DC .047/50 | .047mf | 50V | .09 | .07 | .06 |
| DC .1/50 | .1mf | 50V | .15 | .12 | .10 |

DISC CAPACITOR ASSORTMENT — 160 PIECES
(10 ea. 16 values as listed above) individually packaged
Reg. Price \$13.80 — SAVE \$4.85 #DISC-160 \$8.95

MYLAR CAPACITORS

± 10% Polyester Film

| Part No. | Value | Volts | 1-49 | 50-499 | 500+ |
|-------------|---------|-------|------|--------|------|
| MY.001/100 | .001 mf | 100V | .12 | .10 | .07 |
| MY.0015/100 | .0015mf | 100V | .12 | .10 | .07 |
| MY.0022/100 | .0022mf | 100V | .12 | .10 | .07 |
| MY.0047/100 | .0047mf | 100V | .12 | .10 | .07 |
| MY.01/100 | .01mf | 100V | .12 | .10 | .07 |
| MY.022/100 | .022mf | 100V | .13 | .11 | .08 |
| MY.033/100 | .033mf | 100V | .17 | .14 | .11 |
| MY.047/100 | .047mf | 100V | .21 | .17 | .13 |
| MY.1/100 | .1mf | 100V | .27 | .23 | .17 |
| MY.22/100 | .22mf | 100V | .33 | .27 | .22 |
| MY.33/100 | .33mf | 100V | .39 | .32 | .26 |
| MY.47/100 | .47mf | 100V | .45 | .37 | .31 |

MYLAR CAPACITOR ASSORTMENT — 120 PIECES
(10 ea. of 12 values as listed above) indiv. packaged.
Reg. Price \$25.50 — SAVE \$7.55 #MYLAR-120 \$17.95

SILVER DIPPED MICA CAPACITORS

DM15 Series ± 5% Tolerance (CMO5 Mil. Style)

| Part No. | Value | Volts | 1-49 | 50-499 | 500+ |
|------------|--------|-------|------|--------|------|
| *DM15-100J | 10pf | 500V | .35 | .30 | .25 |
| *DM15-220J | 22pf | 500V | .35 | .30 | .25 |
| DM15-270J | 27pf | 500V | .35 | .30 | .25 |
| *DM15-330J | 33pf | 500V | .35 | .30 | .25 |
| *DM15-470J | 47pf | 500V | .35 | .30 | .25 |
| DM15-560J | 56pf | 500V | .35 | .30 | .25 |
| *DM15-680J | 68pf | 500V | .35 | .30 | .25 |
| DM15-820J | 82pf | 500V | .35 | .30 | .25 |
| *DM15-101J | 100pf | 500V | .35 | .30 | .25 |
| DM15-121J | 120pf | 500V | .42 | .37 | .32 |
| *DM15-221J | 220pf | 500V | .49 | .42 | .35 |
| DM15-271J | 270pf | 500V | .55 | .50 | .45 |
| DM15-331J | 330pf | 500V | .59 | .52 | .45 |
| *DM15-471J | 470pf | 500V | .60 | .55 | .50 |
| DM15-561J | 560pf | 300V | .62 | .57 | .52 |
| *DM15-681J | 680pf | 300V | .65 | .60 | .55 |
| DM15-821J | 820pf | 300V | .80 | .75 | .70 |
| *DM15-102J | 1000pf | 100V | .75 | .67 | .59 |

MICA CAPACITOR ASSORTMENT — 50 PIECES
(5 ea. of 10 values as marked [*] above) indiv. packaged
Reg. Price \$22.90 — SAVE \$7.95 #MICA-50 \$14.95



TRIMMER CAPACITORS

Ceramic

| Part No. | Value | 1-9 | 10-99 | 100+ |
|----------|--------|-----|-------|------|
| TC 2-8 | 2-8pf | .79 | .65 | .49 |
| TC 3-12 | 3-12pf | .79 | .65 | .49 |
| TC 3-23 | 3-23pf | .79 | .65 | .49 |
| TC 4-34 | 4-34pf | .79 | .65 | .49 |
| TC 6-70 | 6-70pf | .79 | .65 | .49 |

TRIMMER CAPACITOR ASSORTMENT — 10 PIECES
(2 each of 5 values as listed above) indiv. packaged
Reg. Price \$7.90 — SAVE \$2.41 #TRIMMER-10 \$5.49

SWITCHES & RELAYS

Unimax Switch



Thumbwheel Switches

SNAP TOGETHER — NO HARDWARE

THUMBWHEEL SWITCHES

SF — FRONT MOUNT SR — REAR MOUNT

| Part No. | Description | Price 1-9 | Price 10 + |
|----------|-------------------------|-----------|------------|
| SF-12 | Single Pole 10 Position | 3.29 | 2.95 |
| SR-12 | Decimal | 3.29 | 2.95 |
| SF-21 | 10 Position BCD only | 3.29 | 2.95 |
| SR-21 | | 3.29 | 2.95 |

SF HEXADECIMAL THUMBWHEEL SWITCHES (Front Mount — Single Pole)

| Part No. | Description | Dial | Price 1-9 | Price 10 + |
|----------|-------------------------------|---------|-----------|------------|
| SF-52 | Decimal 16 Position | 0-9,A-F | 4.95 | 4.45 |
| SF-53* | 16 Position Binary Complement | 0-9,A-F | 4.95 | 4.45 |
| SF-54 | 16 Position BCD | 0-9,A-F | 4.95 | 4.45 |

*Normally closed — all other switches: normally open

Switch Specifications

Character Height 10 pos. .190"/16 pos. .120"
 Switch Height SF — 1.3" SR — 1.204"
 Operating Force280 grams
 Contact Resistance less than .100 ohms
 Contact Rating Switching: 50mA @ 28VAC
 Carry Only: 2A @ 115VAC
 PC Board FR-4 .787mm thick
 Plating 50 millionths gold over nickel, 2 oz. laminate
 Contacts Gold-plated beryllium-copper
 Temperature Operating: -40 to +70 °C
 Storage: -40 to +90 °C
 Connection Break Before Make

PLASTIC PUSH BUTTON SWITCHES



- 18AWG tinned stranded wire with 5" leads • 3/8-27 thread
- .50"W x .60"H x .875"D • 10 amp @ 14V • 1 amp @ 110V

| Part No. | Description | Button Color | 1-24 | 25-99 | 100 + |
|----------|------------------|--------------|-------|-------|-------|
| J188-1 | Push On/Push Off | White | \$.59 | \$.49 | \$.39 |
| J188-2 | Normally Open | Red | .59 | .49 | .39 |
| J188-3 | Normally Closed | Black | .59 | .49 | .39 |

Front Mount Switch Accessories

SERIES SF Front Mount Assembly



SFEP SF21 SF12 SFHB SFBB SFDP SFEP

| Part No. | Description | Price 1-9 | Price 10 + |
|----------|----------------------|-----------|------------|
| SF-EP | End Plates (pair) | .95 | .90 |
| SF-DP | Divider Plate (each) | .60 | .55 |
| SF-BB | Blank Body (each) | .60 | .55 |
| SF-HB | Half Body (each) | .60 | .55 |

Rear Mount Switch Accessories

SERIES SR Rear Mount Assembly



SRDP SRBB SRDP SRHB SR12 SR21 SRDP

| Part No. | Description | Price 1-9 | Price 10 + |
|----------|----------------------|-----------|------------|
| SR-EP | End Plates (pair) | .85 | .75 |
| SR-DP | Divider Plate (each) | .60 | .55 |
| SR-BB | Blank Body (each) | .60 | .55 |
| SR-HB | Half Body (each) | .60 | .55 |

Dimensions for Switches & Accessories

| Dimensions for Switches, EP, DP, BB, HB | | Panel Cut-Out Length for Switches & End Plates | | |
|---|----------------|--|------------------|----------------|
| Panel Thickness Required | = | NO. OF SWITCHES (+ ONE PAIR END PLATES) | LENGTH INCHES | LENGTH MM |
| | | | | |
| 0.125 ± 0.010" | 3.17 ± 0.254mm | 1 | 0.640 | 16.25 |
| | | 2 | 0.955 | 24.25 |
| | | 3 | 1.270 | 32.25 |
| | | 4 | 1.585 | 40.25 |
| | | 5 | 1.890 | 48.25 |
| 0.315 ± 0.002" | 8.00 ± 0.127mm | 6 | 2.205 | 56.25 |
| | | 7 | 2.520 | 64.25 |
| | | 8 | 2.835 | 72.25 |
| | | 9 | 3.150 | 80.25 |
| | | 10 | 3.465 | 88.25 |
| End Plate or 1/2 Body Spacer | = | | 0.158 ± 0.002" | 4.01 ± 0.127mm |
| | | | | |



AROMAT RELAYS












- UL & CSA approved
- Subminiature DIP
- Compact Size — flux resistant
- High sensitivity
- 16-pin DIP terminal arrangement (HB2 only)
- Size: 1"L x 3/4"H x 1/2"D (approx.)

| Part No. | Voltage | Res. (Ohms) | Nom. Power | Contacts Amps | Contacts Arrangement | Price |
|----------|---------|-------------|------------|---------------|----------------------|--------|
| HB2-5 | 5VDC | 43.4 | 576 | 2 | DPDT | \$3.95 |
| HB2-12 | 12VDC | 250 | 576 | 2 | DPDT | \$3.95 |
| HA1-5 | 5VDC | 69 | 360 | 3 | SPDT | \$3.29 |
| HA1-12 | 12VDC | 400 | 360 | 3 | SPDT | \$3.29 |
| HA1-115 | 115VAC | — | 0.9VA | 3 | SPDT | \$3.95 |

STANDEX RELAYS

| Part No. | Voltage | Res. (Ohms) | Nom. Power | Contacts Amps | Contacts Arrangement | Price |
|-----------|---------|-------------|------------|---------------|----------------------|--------|
| RRJ-10317 | 12VDC | 750 | 192 | 16mA | SPST | \$.49 |

SWITCHES

| | MODEL NO. | STYLE | MOUNTING HOLE DIM. | CIRCUITRY* | PRICE | | |
|--|--------------|---------------------------|---------------------------------|-------------------------------|-------|-------|-------|
| | | | | | 1-9 | 10-99 | 100 + |
| SUB-MINIATURE TOGGLE 3 AMP @ 125VAC  | JMT121/FTE01 | SPDT | 1/4" | on-off-on | 1.95 | 1.79 | 1.59 |
| | JMT123/FTD01 | SPDT | 1/4" | on-on | 1.49 | 1.35 | 1.19 |
| | JMT221/FTP01 | DPDT | 1/4" | on-off-on | 2.49 | 2.29 | 1.95 |
| | JMT223/FTN01 | DPDT | 1/4" | on-on | 2.25 | 1.95 | 1.69 |
| PRINTED CIRCUIT BOARD TOGGLE 3 AMP @ 125VAC  | MPC121/FTE03 | SPDT | 1/4" | on-off-on | 2.29 | 1.95 | 1.79 |
| | MPC123/FTD03 | SPDT | 1/4" | on-on | 1.69 | 1.55 | 1.39 |
| | MPC221/FTP03 | DPDT | 1/4" | on-off-on | 2.95 | 2.69 | 2.39 |
| | MPC223/FTN03 | DPDT | 1/4" | on-on | 2.49 | 2.29 | 1.95 |
| LEVER FLAT TOGGLE 3 AMP @ 125VAC  | LFH121 | SPDT(FTE41) | 1/4" | on-off-on | 2.89 | 2.59 | 2.29 |
| | LFH123 | SPDT(FTD41) | 1/4" | on-on | 2.39 | 2.15 | 1.89 |
| | LFH221 | DPDT(FTP41) | 1/4" | on-off-on | 3.29 | 2.89 | 2.59 |
| | LFH223 | DPDT(FTN41) | 1/4" | on-on | 2.95 | 2.69 | 2.39 |
| | 7301P3 | 3PDT | 1/4" | on-off-on | 8.95 | 8.49 | 7.95 |
| ROCKER SWITCH 10 AMP @ 250VAC  | RS026 | SPDT | 1.10"L x .50"W (1.05" depth) | on-on | 1.49 | 1.35 | 1.19 |
| PUSHBUTTON 5 AMP @ 125VAC  | PB123/FPD01 | Maintained SPDT | 1/4" | on-on | 3.69 | 3.29 | 2.95 |
| | PB126/FPF01 | Momentary SPDT | 1/4" | on-on | 3.69 | 3.29 | 2.95 |
| Miniature Slide  | SL716 | DPDT | 5/16" x 5/8" | on-on | .39 | .35 | .29 |
| Subminiature Slide  | MSL34 | SPDT | 3/8" x 7/32" | on-on | .49 | .45 | .39 |
| DIPSWITCH  | 206-4 | SPST | 8-pin dip | 4 switch | 1.19 | 1.09 | .99 |
| | 206-7 | SPST | 14-pin dip | 7 switch | 1.39 | 1.29 | 1.19 |
| | 206-8 | SPST | 16-pin dip | 8 switch | 1.49 | 1.39 | 1.29 |
| | 206-12 | SPST | 24-pin dip | 12 switch | 1.69 | 1.49 | 1.29 |
| ROTARY 0.3 AMP @ 125VAC NON-SHORTING BREAK BEFORE MAKE  | MRS260 | Double pole 2-6 position | 3/8" | 2 pole 6 pos. single section | 1.19 | 1.05 | .95 |
| | MRS304 | Triple pole 3-4 position | 3/8" | 3 pole 4 pos. single section | 1.25 | 1.09 | .99 |
| | MRS112 | Single pole 1-12 position | 3/8" | 1 pole 12 pos. single section | 1.15 | .99 | .89 |
| MINIATURE PUSH BUTTON 1 AMP @ 125VAC  | MS102 | Momentary SPST | 1/4" | normally open | .39 | .35 | .29 |
| | MS103 | Momentary SPST | 1/4" | normally closed | .49 | .45 | .39 |
| COLORLED CAPS for MS102-103 SWITCHES (Cement On)  | MSR-CAP | Red | 1/4" | ----- | .19 | .17 | .15 |
| | MSB-CAP | Black | 1/4" | ----- | .19 | .17 | .15 |
| | MSG-CAP | Green | 1/4" | ----- | .19 | .17 | .15 |
| | MSY-CAP | Yellow | 1/4" | ----- | .19 | .17 | .15 |
| | MSE-CAP | Blue | 1/4" | ----- | .19 | .17 | .15 |

*on-off-on = 3 position on-on = 2 position

EECO ROCKER DIP SWITCH

• PCB or Dip Socket mountable • Retrofits all major brands of Dip Switches • **Limited Quantities!**

| Part No. | Position | Configuration | Socket | Price |
|----------|----------|---------------|--------|--------------------|
| 2400-3 | 3 | 123 | 8-pin | \$.49 each |
| 2400-4 | 4 | 1234 | 8-pin | \$.59 each |
| 2400-5C | 6 | C54321 | 14-pin | \$.59 each |
| 2400-6 | 6 | 123456 | 14-pin | \$.69 each |

| Part No. | Position | Configuration | Socket | Price |
|----------|----------|---------------|--------|--------------------|
| 2400-7 | 7 | 1234567 | 14-pin | \$.69 each |
| 2400-8* | 8 | 12345678 | 16-pin | \$.89 each |
| 2400-9 | 9 | 123456789 | 18-pin | \$.89 each |
| 2400-10 | 10 | 1234567890 | 20-pin | \$.89 each |

* Toggle Dip Switch (DT-08)

GB179 Grab Bag — EECO Rocker Dip Switches. (20 piece assortment). \$8.00

AUDIBLE DEVICES, JOYSTICKS & TOOLS

ROUND

SPEAKERS

SQUARE

BUZZER



A0201

2 1/4" Round — 8 Ohm
.25 Watt
Size: 2 1/4" dia. x 3/4" deep

| Part No. | Price |
|------------------------|---------------|
| A0201 | \$.99 |



SF-25016

2 1/2" Square — 16 Ohm
.25 Watt (4 mounting holes)
Large Ceramic Magnet
Size: 2-5/8" square x 3/4" deep

| Part No. | Price |
|---------------------------|---------------|
| SF-25016 | \$1.25 |



TS30S

1-3/16" Square - 5/32" Thick
8 Ohm — .40 Watt

• Stainless steel diaphragm • Ferrite bonded magnet • Slim line • For alarms, music sounds, telephone equipment, computers, speech aid, etc.

| Part No. | Price |
|------------------------|---------------|
| TS30S | \$1.95 |



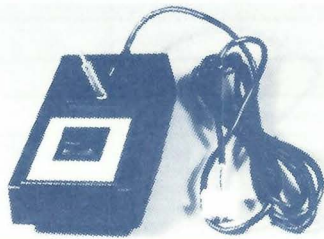
MB6

Operates on +6 to +9VDC
Output frequency: 800Hz
Draws only 15mA @ 600 Ohms
Sound: 80db Size: 1 1/4" x 5/8"

| Part No. | Price |
|----------------------|---------------|
| MB6 | \$1.75 |

Joystick Video Controller

NOTE:
JS5K, JS100K or
JS150K Joysticks
(at right) are inter-
changeable with
the 40K pot in the
JVC-40 Joystick



• Ideal for all video games or remote control projects • Two miniature potentiometers are 40K ohms each • SPST pushbutton control • Five-wire connection cable, 5 feet long • Rugged plastic case • Specification sheet not available — not spring-loaded • Case size: 1 1/2"H x 2 3/8"W x 4-5/16"L

| | | |
|-----------------|---|---------------|
| JVC-40 | Joystick Video Controller. . . . | \$4.95 |
| JVC-Knob | Knob only. | \$.99 |

SONALERT® AUDIBLE SIGNAL DEVICE



"Use as a Warning Device
or Audible Reminder"

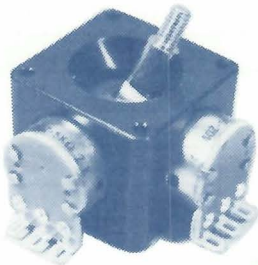
• Turns on and off with low power transistor, SCR or IC • Can be battery operated 4-28 volts • Solid-state — no moving parts • Panel mounts in 1.25" round hole • Black plastic case — includes mounting nut • Operating volts (DC): 4V (min.) to 28V (max.) • Current mA: 3mA (min.) to 25mA (max.) • dbA: 69dbA (min.) to 80dbA (max.) • Frequency: 2900Hz ± 500 • Size: 1 1/4"H x 1-11/16"D

| | |
|---------------------------------|---------------|
| Part No. SC628 (HJ-650). | \$7.95 |
|---------------------------------|---------------|

JOYSTICK MICRO-MINIATURE

- These can be used in the JVC-40
- Two each 150K, 100K or 5K pots (linear taper) • Not spring-loaded
- Volt. rating: 150V • Power rating: 0.04W • Size: 1-5/8"D x 1-5/8"W x 1-7/16"H. (Knob not included)

| Part No. | Price |
|--------------------------|---------------|
| JS5K | \$5.25 |
| JS100K | 4.95 |
| JS150K | 4.75 |
| JS-Knob | .99 |



NIBBLING TOOL

This Nibbling Tool is perfect for cutting, trimming, or notching sheet metal up to 18 gauge. It operates like a punch and die, and also works well on aluminum or plastic up to 1/16" thick. We feel that this tool can be a real time-saver for our customers when working on chassis, printed circuit boards and prototype models. Size: 6 1/2" long.

| Part No. | Description | Price |
|-------------|------------------------------------|---------------|
| NT-1 | Nibbling Tool | \$9.95 |
| RP-1 | Replacement Punch | \$5.95 |

TOOLS

UL
Approved

SOLDERING IRON



- Heavy duty • Lightweight
- 110-120V - 30 Watt • Size: 10" long

| Part No. | Description | Price |
|----------|-----------------|--------|
| SG-30 | Solder Iron | \$4.95 |
| SG-Tip | Replacement Tip | .99 |

SOLDER WICK

- Economical desoldering method
- Removes excess solder without damage to board or circuitry
- 5 feet



| PART NO. | WIDTH | PRICE |
|----------|-------|--------|
| 40-1 | .025 | \$1.49 |
| 40-2 | .050 | \$1.49 |
| 40-3 | .075 | \$1.49 |

SOLDER - 5-CORE RESIN



Dispenser Pak for Diodes, Transistors, Printed Circuits, Fine Wires. Extra thin, extra fast, non-corrosive, 13 feet. 60-tin/40-lead (SN60). 22 awg. .028" diameter.

| | |
|-----------------|--------|
| Part No. PC115. | \$2.95 |
|-----------------|--------|



SOLDER

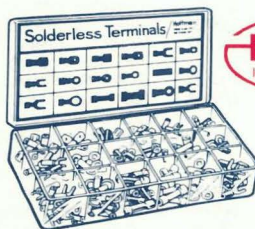
.031" Diameter
Rosin Core Solder

| Part No. | Price |
|--------------|---------|
| SN60 (1 lb.) | \$10.95 |

SOLDERLESS INSULATED TERMINALS & CONNECTORS

FOR ALL ELECTRICAL REPAIRS

Each Kit contains 175 insulated terminals and connectors and features 18 of the most popular styles and configurations (rings, spades, butt connectors, male and female disconnects), everything needed to perform professional wiring jobs. "See-through" hinged box makes storage and selection quick and easy. A must for anybody who wants professional wiring results.

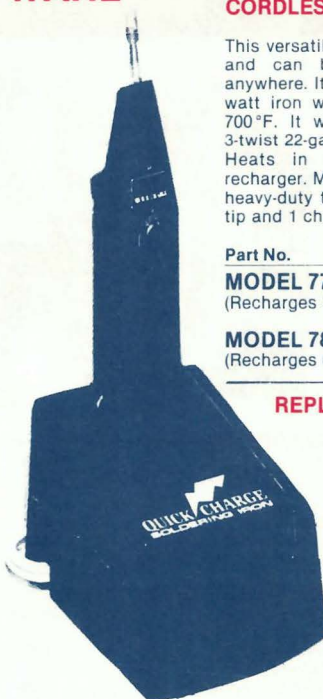


| PART NO. | DESCRIPTION | PRICE |
|----------|------------------------|--------|
| A18K | Terminal/Connector Kit | \$8.95 |

WAHL

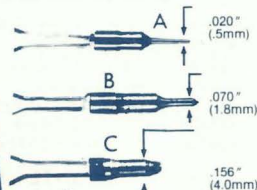
QUICK-CHARGE CORDLESS SOLDERING IRONS

This versatile tool weighs only six ounces, and can be operated without power anywhere. It gives the performance of a 50 watt iron with a tip temperature of over 700°F. It will solder an average of 160 3-twist 22-gauge wire joints on one charge. Heats in 5 seconds. Complete with recharger. Model 7700 includes 1 fine and 1 heavy-duty tip. Model 7800 includes 1 fine tip and 1 chisel tip.



| Part No. | Price |
|------------------------|---------|
| MODEL 7700 | \$36.95 |
| (Recharges 3-4½ hours) | |
| MODEL 7800 | \$49.95 |
| (Recharges 60 minutes) | |

REPLACEMENT TIPS



| | |
|---------------------|--------|
| #7566 "A" (Micro) | \$3.25 |
| #7545 "B" (Fine) | 3.25 |
| #7535 "C" (Regular) | 3.25 |

WAHL P.C. Drill Attachment

Attaches to Models 7700 and 7800. Fast and easy. Clean out lead holes in circuit boards. Operates up to 14,600 RPM.

| Part No. | Description | Price |
|----------|------------------|---------|
| 6500 | Drill Attachment | \$13.95 |
| 6550 | Replacement Bit | \$ 1.49 |

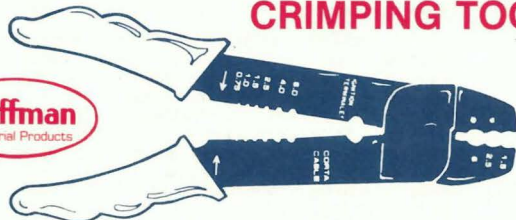


Electronic Solder

- 60% Tin • 40% Lead • Rosin Core
- .045" diameter • Weight: 2.5 oz.

| PART NO. | PRICE |
|----------|--------|
| SK-15 | \$3.99 |

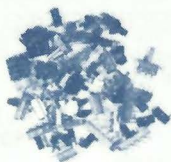
CRIMPING TOOL



- Standard/Light Duty • Electrical and general purpose • Crimps insulated terminals sizes 22-10 gauge • Strips wire 22-10 gauge • Molded vinyl grips • Stamped steel construction • Ideal for use with Solderless Terminal Kit A18K

| PART NO. | DESCRIPTION | PRICE |
|----------|---------------|--------|
| Y401 | Crimping Tool | \$4.95 |

**Assorted Switch
Grab Bag**



Over 40 each assorted Slide, Rocker, Toggle, Micro and Pushbutton Switches.

GB165.... \$8.00 each



**Mabuchi Robotics
Toy Motor**



Size: .937" OD, 1.20"L. Operating voltage: 1.5V to 6.0V. DC Voltage 3.0. RPM: 9200 @ .20 Amp. Small torque: 0.97 oz. in.

GB182 5 for \$2.00

CAPACITORS

| Part No. | Description | Price |
|----------|--|--------|
| GB100 | 100 each Ceramic Disc (10pf—.1mf) | \$2.00 |
| GB101 | 60 each Mylar | 3.00 |
| GB102 | 60 each Electrolytics | 4.00 |
| GB103 | 40 each Tantalum (tubular & dipped) | 4.00 |
| GB176 | 40 each Dipped Micaps (10pf-100pf @ 100-500V) .. | 4.00 |

INTEGRATED CIRCUITS

| | | |
|-------|--|--------|
| GB108 | 50 each TTL Series — marked | \$4.00 |
| | (7400, 74L, 74H, 74S, etc.) | |
| GB109 | 30 each Linear — marked | 4.00 |
| | (LM301, 307, 741, 308, etc.) | |
| GB150 | 20 each Shift Registers — marked | 4.00 |
| | (2510, 2518, 2532, 2533, etc.) | |
| GB157 | 50 each DTL Series — marked | 5.00 |
| | (DM930, 932, 936, 946, etc.) | |
| GB158 | 6 pcs. Pos. Voltage Regulators (TO-3 case) | 4.00 |
| | (7805, 06, 12, 15, 18, 24, etc.) Linear marked | |
| GB159 | 6 pcs. Neg. Voltage Regulators (TO-3 case) | 4.00 |
| | (7905, 06, 12, 15, 18, 24, etc.) Linear marked | |
| GB170 | 25 each Assorted 74LS TTL Series | 4.00 |
| GB172 | 10 pcs. 78M Pos. Voltage Reg. (TO-5 case) | 4.00 |
| | (78M05, 8, 12, 15, 20, 24, etc.) Linear marked | |
| GB181 | 25 pcs. RAMs & PROMs — marked | 5.00 |
| | (1103, 2102, 4116, 5261, 5262, 82S10, S11, S16, S21, S23, S25, S123, S126, S129, etc.) | |

LEDs — READOUTS

| | | |
|-------|--|--------|
| GB110 | 100 each Assorted LEDs (colors & sizes) | \$6.00 |
| | (XC556, XC526, etc.) | |
| GB162 | 50 each 7-Segment Displays & Stick Displays | 6.00 |
| | (various colors and sizes) | |
| GB186 | 500 each (same description as GB110 above) | 15.00 |

POTENTIOMETERS

| | | |
|-------|---|--------|
| GB113 | 30 each Miniature Trimmers (100 ohm - 1 Meg) .. | \$3.00 |
| GB134 | 24 each 3/8" square single-turn PC Mount | 3.00 |
| | (untested — 10 ohm to 500 ohm) marked | |
| GB135 | 24 each 3/8" square single-turn PC Mount | 3.00 |
| | (untested — 1K to 50K) marked | |
| GB136 | 24 each 3/8" square single-turn PC Mount | 3.00 |
| | (untested — 100K to 5 Meg) marked | |
| GB174 | 25 each 1/4 watt thumbwheel single turn | 3.00 |
| | (500 ohm - 5 Meg) | |
| GB183 | 10 pcs. Linear Slide Pots. (500Ω-500K) | 5.00 |
| GB184 | 25 pcs. Volume Control Pots. | 3.00 |
| | (100Ω thru 100K) no bushing | |

NEW! — JAMECO'S SURPRISE GRAB BAG

Over 100 miscellaneous electronic components and hardware. You'll be surprised —
Any GB190 is WORTH THREE TIMES ITS PRICE!

GB190 \$9.95

DIODES

| Part No. | Description | Price |
|----------|--|--------|
| GB107 | 100 each Silicon (1N914/1N4148) | \$3.00 |
| GB164 | 200 each marked, unmarked rectifiers & zeners .. | 2.00 |
| GB171 | 80 each Assorted Germanium | 2.00 |
| | (1N34, 1N68, 1N270) marked and unmarked | |
| GB175 | 100 ea. 1-3 amp (cathode band) silicon rectifiers .. | 3.00 |

RESISTORS

| | | |
|-------|---|--------|
| GB116 | 200 each 1/4 watt resistor assortment | \$2.00 |
| GB117 | 200 each 1/2 watt resistor assortment | 2.00 |
| GB118 | 30 ea. Wire Wound 5, 10, 20W (.1-100 ohm) | 4.00 |
| GB154 | 100 each 1 and 2 watt resistor assortment | 2.00 |

SWITCHES

| | | |
|-------|--|--------|
| GB120 | 25 each Miniature slide | \$3.00 |
| GB165 | 40 asst. toggle, rocker, pushbutton | 8.00 |
| GB179 | 20 each Dip Switches (asst. positions) | 8.00 |

HARDWARE

| | | |
|-------|--|--------|
| GB139 | 40 each Terminal Strips | \$3.00 |
| | solder and screw types (3 to 8 terminals) | |
| GB140 | 150 each Spacers, standoff, insulators | 2.00 |
| | (metal, nylon and plastic) | |
| GB141 | 200 each Washers and Spacers (nylon & teflon) .. | 2.00 |
| GB142 | 50 ea. Chassis mounting feet (rubber & plastic) .. | 2.00 |
| GB144 | 200 each Solder lugs (small) | 2.00 |
| GB145 | 100 each Lugs — crimp-on (some insulated) | 2.00 |
| GB166 | 48 Threaded metal & plastic spacers (1/2-2" long) .. | 2.00 |
| GB167 | 200 pcs. sheet metal and metal tapping screws .. | 2.00 |
| GB168 | 200 pcs. angle bkts, clip insulators, etc. | 3.00 |

MISCELLANEOUS

| | | |
|-------|---|--------|
| GB123 | 30 each Heat Sinks — assorted sizes | \$3.00 |
| GB124 | 6 each assorted calculator-type keyboards | 5.00 |
| GB126 | 50 ea. Opto-Isolators — IL-1 Series (untested) .. | 2.00 |
| GB127 | 100 each Transistors — plastic and power | 3.00 |
| GB128 | 30 each Toroid Cores — iron and tape | 4.00 |
| GB129 | 50 each Photo Transistors (LPT) | 4.00 |
| GB131 | 30 each 6" shrink tubing, asst. sizes/colors | 4.00 |
| GB137 | 50 each Chokes, coils and inductors | 3.00 |
| | (molded-wire-adjustable) | |
| GB138 | 2 each Speakers, 2 1/4", 8 ohm, 1/4 watt | 1.95 |
| GB155 | 300 each mixed resistors, capacitors, | 4.00 |
| | diodes, transistors, chokes, etc. | |
| GB160 | Printed Circuit Board | 2.00 |
| | Contains 50-75 components on each board | |
| GB163 | 30 each Sockets (asst. IC and transistor) | 4.00 |
| GB177 | 200 each 1" shrink tubing, asst. colors/sizes | 3.00 |
| GB182 | 5 each Toy Motors (operating volt. 1.5V-6.0V) .. | 2.00 |
| GB187 | 25 each Assorted Cherry Keycaps. | 3.00 |

KNOBS

| | | |
|-------|--|--------|
| GB185 | 20 each Knobs (assorted styles, sizes & colors) .. | \$3.00 |
|-------|--|--------|

— ALL GRAB BAGS ARE NON-RETURNABLE —

TRANSFORMERS, FUSES & BATTERY ACCESSORIES

AC Wall Transformers

Ideal for use with clocks, games, power supplies or any other type of AC application.

UL approved



| Part No. | Input | Output | 1-9 | 10+ |
|----------|-----------|---------------|--------|--------|
| AC9004 | 120V/60Hz | 9.2VAC 3 amp | \$6.95 | \$6.19 |
| AC250 | 120V/60Hz | 12VAC 250mA | \$3.95 | \$3.49 |
| AC500 | 120V/60Hz | 12VAC 500mA | \$4.95 | \$4.49 |
| AC1000 | 120V/60Hz | 12VAC 1 amp | \$5.95 | \$5.49 |
| AC2400 | 120V/60Hz | 24VAC 1.2 amp | \$4.95 | \$4.49 |

DC Wall Transformers

Ideal for use with clocks, games, power supplies or any other type of DC application.

UL approved
(except DC600)



| Part No. | Input | Output | 1-9 | 10+ |
|----------|-----------|---------------|--------|--------|
| DC600 | 120V/60Hz | 6VDC 300mA | \$2.95 | \$2.49 |
| DC800 | 120V/60Hz | 8VDC 400mA | \$3.95 | \$3.29 |
| DC9200 | 120V/60Hz | 9VDC 200mA | \$3.95 | \$3.29 |
| DC900 | 120V/60Hz | 9VDC 500mA | \$4.49 | \$3.95 |
| DC901 | 120V/60Hz | 9VDC 1 amp | \$5.95 | \$5.49 |
| DC5490 | 120V/60Hz | 9.5VDC 275mA | \$4.29 | \$3.75 |
| DC1200 | 120V/60Hz | 10.5VDC 300mA | \$4.49 | \$3.95 |

Clock Module Transformers

Part No. 102P20 \$3.49

• Use for Clock Module MA1023, MA5036
• PRI: 115VAC, 60Hz • Sec: 9VAC @ 25mA, 8VCT @ 250mA • Size: 2" L x 1-3/16" H x 1-7/16" D
(See Clock Modules on page 34)

Part No. 102P22 \$3.49

• Use for Clock Module MA1026 • PRI: 115VAC, 60Hz • Sec: 12VAC @ 25mA, 6.5VCT @ 250mA • Size: 2" L x 1-3/16" H x 1-7/16" D
(See Clock Modules on page 34)

Part No. 102P24 \$3.49

• Use for Clock Module MA1002 • PRI: 115VAC, 60Hz • Sec: 16VAC @ 23mA, 10.4VCT @ 250mA • Size: 2-5/16" L x 1-5/16" H x 1 1/4" D
(See Clock Modules on page 34)

Power Transformers



• Input: 117V/60Hz • Output: 12.6VCT @ 2 amps
• 1500RMS test voltage • Mounting centers: 2 3/4"
• Size: 3 1/4" L x 2" H x 2 1/8" D

P8130 (F25X) \$6.95

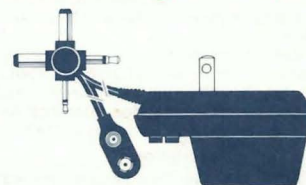
• Input: 117V/60Hz • Output: 12.6VCT @ 4 amps
• 1500RMS test voltage • Mounting centers: 3 1/4"
• Size: 3-11/16" L x 2-5/16" H x 2 3/4" D

PX4 \$7.95

• Input: 115V Primary, single secondary 50-60Hz
• Output: 21VCT @ 2 amps • 1500RMS test voltage
• Mounting centers: 3-9/16" • Size: 4" L x 2-9/16" H x 2 1/4" D

F255X \$9.95

5-Way DC Voltage Adapter



With Universal Plug and 9 Volt Battery Snap

• Selective voltages: 6.9, 12VDC • Polarity selection: (+) or (-) • Six-foot line from adapter to plugs • Six-inch line from adapter to battery snap • 120V/60Hz 300mA • UL approved

DC6912 \$8.95

BATTERY HOLDER



• Holds 2 each "C" cell batteries
• Aluminum case • 5" leads
• Size: 2-3/16" L x 2-1/16" W x 1 1/4" D

BH-801-159 \$3.99

Solar Cells



• Can be added in series for higher voltage or parallel for higher current • 0.4V, 100mA, 41mW • Size: 2x2 cm (approx. .790" x .702")

\$1.95 each

SC2x2... or 10 for \$14.95

9V BATTERY CLIP



Standard clip for use with 9V transistor batteries. Has 4" leads.

BC9 9 for \$9.99

Alligator Clip Test Leads

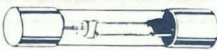


• Color coded
• Insulated alligator clip on each end
• 15" long
• Assorted colors

ALCP (10 per pkg.) . \$2.95/pkg.



FUSES



AGC FUSES

• BUSS fast acting fuses for protection of instruments
• Size: 1/4" x 1 1/4" • Glass tube
• 3AG 250V or less • Please specify amperes: 1/4, 3/8, 1/2, 3/4, 1, 2 • Box includes 5 of same type fuse.

AGC- \$2.95/box (SPECIFY AMPS)

MDL FUSES

• FUSETRON dual element glass tube • Slow blowing fuse
• Size: 1/4" x 1 1/4" • 250V or less • Please specify amperes: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2 • Box includes 5 of same type fuse

MDL- \$3.95/box (SPECIFY AMPS)

FUSEHOLDER



• Normal current carrying capacity: 30 amps • Recognized under the component program of Underwriters Laboratories, Inc. for 15 amps, 250V or less

HKP 1-24 \$7.99 each HKP 25-99 \$6.59 each HKP 100+ \$5.99 each

In-Line Fuseholder



• Handy fuseholder for many applications • Holds popular 1 1/4" fuse size • Approx. length of unit: 40" • Terminal on one end for ease of hook-up

IFH3 \$4.99 each

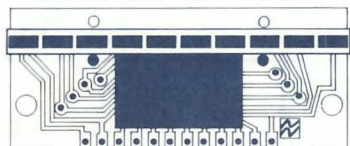
.5" 4-Digit Field Effect LCDTIMEX
T1001ALIQUID
CRYSTAL
DISPLAY

Applications: • Digital clocks • Thermometers • Pressure gauges • Stopwatches • Timers • Voltmeters and Digital Multimeters
A reflective LCD gives a dark display on a light background. A 6-9 volt supply is required for operation (not included). Size: 2.00" L x 1.20" W x .170" D. Connector and data sheet included.

Part No. T1001A Field Effect LCD \$9.95

10-Segment Bargraph Displays

WITH ON-BOARD DRIVER IC-CHIP

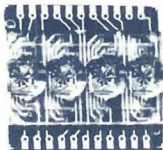


NSM3914

Applications: • Power meter in stereo systems • VU-meter in tape recorders, etc.

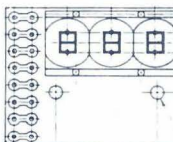
Bar or dot display mode externally selectable by user. Packages are end-stackable for expanded displays. Can be cascaded to 10 arrays (100 bargraph elements). LED current programmable from 2mA to 30mA. Stable internal voltage reference for full scale analog inputs from 1.2 to 12V. Size: 2" L x 7/8" H x 3/16" D (.160" L x .063" H per BAR).

| Part No. | Description | Price |
|----------|---|--------|
| NSM3914 | Linear Function (10 bars red) | \$5.95 |
| NSM39146 | Linear Function (6 bars green/4 red) | 6.95 |
| NSM3915 | Logarithmic Function (10 bars red) | 5.95 |
| NSM39158 | Logarithmic Function (6 grn./2 yell./2 red) | 6.95 |
| NSM3916 | VU-Meter Function (10 bars red) | 5.95 |
| NSM39168 | VU-Meter Function (6 grn./2 yell./2 red) | 6.95 |


**4-Digit 16-Segment
Red Alphanumeric
Intelligent Display with
Memory, Recorder & Driver**


End-stackable, 4-character package. High contrast, 160mm high, magnified monolithic characters. 64-Character ASCII format. Built-in memory, decoder, multiplexer and drivers. Direct access to each digit independently and asynchronously. Five volt logic, TTL compatible. Five volt power supply only. Independent cursor function. Size: 1" L x 1-3/16" H x .225" D.

Part No. DL1416 Alphanumeric Display \$9.95


**.180" 3-Digit
Red Up/Down
Counter Module**


Applications: • Tape recording systems • Up/down counters • Toys and games

The MA6013 is an electronic up/down counter module featuring a 3-digit LED display. The display consists of monolithic red digits magnified by a clear bubble lens which produces an apparent digit height of .180" (.44mm). The clock input has a 4-bit prescaler (divide-by-16) incorporated into the module. Size: 1.535" L x 1.25" H x .397" D. Data sheet included.

Part No. MA6013 Up/Down Counter Module . . . \$4.95

FAIRCHILD

FCS8000

**.8" Red LED
Clock Display**


Applications: • Wall & Desk Clocks • Clock Radios • Interval Timers
The FCS8000 is a 3 1/2-digit, common cathode, solid state numeric display module. It includes an AM/PM indicator and pinouts compatible with the National MM5387 MOS clock circuit. The FCS8024 is a 4-digit, common cathode version for European format. Standard interface circuits will allow operation with TTL, DTL, or CMOS SSI and MSI circuits. Size: 3.50" L x 1-7/16" H x 7/16" D. Data sheet included.

Part No. FCS8000 3 1/2-Digit Display (12 Hr.) . . \$2.95 ea.

Part No. FCS8024 4-Digit Display (24 Hr.) . . . \$2.95 ea.



5-LT-43B1


**.5" Vacuum
Fluorescent
Display**

The device is a 4-digit fluorescent display. The display features 10 bar indicators and a colon indicator. It is ideal for use in timer clocks and other such appliances and applications. Blue-green illuminations. Size: 3-7/8" L x 1-9/16" H x 3/4" D (Leads: 3/4" long). For use as an alarm clock, use the MK50250 clock chip.

Part No. 5-LT-43B1 4-Digit Plus Colon \$2.95

Part No. MK50250 4/6 Digit Alarm w/Snooze Clock Chip \$6.95


**0.5" 4-Digit
LED Display
with Serial Data/Parallel
Data-Out LED Driver**


FEATURES: • Four 0.5" digits with right-hand decimal points • LED current is programmable • Serial data input • Clock format — colon between center digits • Enable • TTL compatible • Wide power supply operation • Direct current drive (non-multiplexed)

APPLICATIONS: • COPS™ or microprocessor display • Digital clocks • Thermometers • Counters • Voltmeters • Instrumentation readouts • Size: 1.99" W x 1.70" H x .287" D

The NSM4005A is a 4-digit 0.5" height LED display with a serial data/parallel data-out LED driver designed to operate with minimal interface to the data source. Current drive to the LEDs is programmable by setting a reference current to a single pin.

Part No. NSM4005A LED Display w/Driver \$7.95

**.5" 3 1/2-Digit
Field Effect
LCD**


AND

FE0203D

Applications: • Digital voltmeters, thermometers, pressure gauges, timers, and clocks (Used with Intersil's 7106CPL & 7116CPL — Page 6)

• Reflective LCD gives a dark display on a light background • "Low Battery" indicator • Ready to mount • 40-pin package (no connector required) • Size: 2.00" L x 1.20" H x .10" D (.10" pin spacing)

Part No. FE0203D Field Effect LCD w/Pins. \$14.95

**.5" 4-Digit
Field Effect
LCD**


AND

FE0202D

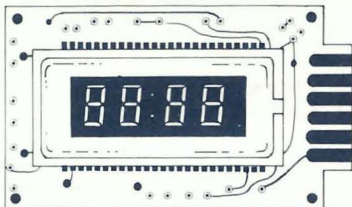
Applications: • Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format), and frequency counters

• Reflective LCD gives a dark display on a light background • High visibility • Ready to mount • 40-pin package (no connector required) • Size: 2.00" L x 1.20" H x .10" D (.10" pin spacing)

Part No. FE0202D Field Effect LCD w/Pins. \$14.95

NATIONAL CLOCK & TIMER MODULES

.3" Green 12VDC Vacuum Fluorescent Automotive/Instrument Clock



APPLICATIONS: • In-dash autoclocks • After-market auto/recreational vehicle clocks • Aircraft-marine clocks • 12VDC oper. instrument • Portable/battery powered instruments

FEATURES: Bright 0.3" green display. Internal crystal timebase. ± 0.5 second/day accuracy. Automatic display brightness control logic. Display color filterable to blue, blue-green, green and yellow. Complete data sheet — just add switches and lens.

MA1003 Module (3.05" L x 1.75" H x .98" D) **\$19.95**

.7" Red Digital LED Alarm Clock/Thermometer



APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Instrument panel clocks • Thermometers (°C or °F)

FEATURES: 0.7" — 4-digit LED display. "One-finger" 59-min. sleep counter setting. Multiple 9-min. snooze counter. 24-hr. alarm w/on/off control. Entire display flashes to indicate power loss. Simple fast/slow setting controls. 6 display modes (temp., time, sec., alarm, sleep and lamp test). User selectable °C/°F. 12/24-hr., 50/60Hz and fixed/flashing colon function. Leading zero blanking. Complete system requires addition of transformer, setting switches and sensor. Direct-drive LED display—no RFI. Bright/dim or cont. display brightness control capability. 800Hz (nom.) alarm tone output, gated at 2Hz rate. 24-hr. output signal for optional calendar circuit. Separate inputs for all setting and display modes. Data sheet included.

MA1026 Module (3.75" L x 1.75" H x .812" D) **\$24.95**

102-P22 Transformer for MA1026 Clock Module **\$3.49**

LM334Z Constant Current Source (Temperature Sensor) **\$1.19**

.7" RED DIGITAL LED CLOCK



FITS
IN-CC
CLOCK CASE

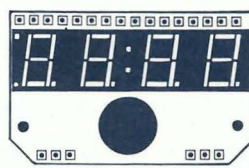
APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Instrument panel clocks

FEATURES: Display size: 0.7". "One-finger" 59-minute sleep counter setting. Multiple 9-minute snooze counter. 24-hour alarm with on-off control. Entire display flashes to indicate power loss. Simple fast/slow setting controls. Five display modes (time, seconds, sleep, alarm, and lamp test). User selectable 12/24 hour, 50/60Hz and fixed/flashing colon operation. Leading zero-blanking. Requires only the addition of transformer and setting switches. Direct-drive LED display — no RFI. Continuous "two-level" or automatic display brightness control capability. Back-up oscillator option allows continuous time-keeping during power-line failure with a single 9V battery and external 5M ohm potentiometer. 800Hz (nom.) alarm tone output, gated at a 2Hz rate. 24-hour output signal for optional calendar circuit. Separate inputs for all settings and display modes. Data sheet included.

MA1023 Module (3.30" L x 1.50" H x .624" D) **\$9.95**

102-P20 Transformer for MA1023 Clock Module **\$3.49**

.3" Red Digital LED Clock/Timer



APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Appliance timers • Instrument panel clocks

FEATURES: 0.3" display size. "One-finger" 59-minute sleep counter setting. Multiple 9-min. snooze control. 24-hr. alarm w/on/off control. Entire display flashes to indicate power loss. Simple fast/slow setting controls. Five display modes (time, sec., alarm, sleep and lamp test). User selectable 12/24 hour, 50/60Hz and fixed/flashing colon oper. Leading zero blanking. Direct-drive LED display — no RFI. Display brightness control. Back-up oscillator allows continuous timekeeping during power-line failure w/single 9V battery and external 5M ohm pot. 24-hr. output for optional calendar circuit. Separate inputs for all settings and display modes. Data sheets included.

MA5036 Module (1.60" L x 1.00" H x .1875" D) **\$6.95**

102-P20 Transformer for MA5036 Clock Module **\$3.49**

.5" Red Digital LED Clock with Transformer

900 Available

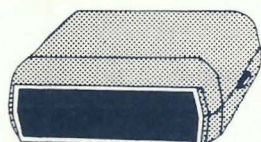


FITS
IN-CC
CLOCK CASE

APPLICATIONS: • Alarm clocks • Desk clocks • Instrument panel clocks

FEATURES: Bright 4-digit 0.5" LED display. Complete — add only transformer and switches. Alarm clock, 12 or 24-hour display format. 50 or 60Hz operation. Power failure indication. Brightness control capability. Alarm "on" and PM indicators. Direct-drive—no RFI. Fast and slow set controls. Low cost, extremely compact design. Uses Transformer 102P24, included. Size: 3.05" L x 1.375" H x .93" D. Data sheet included.

MA1002E With Transformer (12 Hour) **\$9.95**



INSTRUMENT/ CLOCK CASE

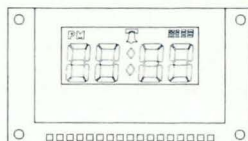
This case is an injection molded unit that is ideal for uses such as DVM, counter, or clock cases. It is a black case with red lens and includes a mounting bracket (for car dash), bezel, and four screws. Hole in back for power cord. **Inside Dimensions:** 3 3/4" W x 4 1/8" L x 1 1/2" H. **Outside Dimensions:** 3 7/8" W x 4 7/16" L x 1 5/16" H. **Lens Dimensions:** 3 1/4" W x 7/8" H.

IN-CC Instrument/Clock Case **\$4.95 each**

IN-LENS Lens (only) for IN-CC **\$1.49 each**

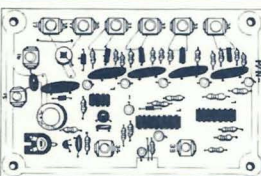
.5" DIGITAL LCD CLOCK

150 Available



FEATURES: 0.5" LCD display with PM, sleep and alarm enunciations. User-selectable 12 or 24 hour mode. 24-hour alarm with on/off control. Presettable 59-minute sleep timer with reset to zero feature. 7-minute snooze timer. Fast/slow setting controls. Time setting hold mode for accurate time setting. Seconds display mode. Operates from a single 1.5V battery. Low power consumption: 90mA hour battery will typically provide one year of operation. Buffered alarm and sleep outputs for travel alarm and clock radio power switch applications. Self-contained tunable oscillator; optional customer tunable module. Backlighting display, flashing colon, DC alarm, fixed tuning. Minimum external parts required for travel clock/clock radio applications. Data sheet included.

MA1032CBA Module (3.20" L x 1.80" H x .862" D) **\$19.95**



Universal Timer Board

MULTI-OUTPUT DELAY SEQUENCER

• 4 Triac switchable outputs • Triacs rated @ 500V @ 2.5 amp • Can be modified for any time-based timer • Time on and off can be set by changing capacitors • Requires 115VAC for operation • Kit supplied with potentiometers and a capacitor for building a 200-hour variable time base • Data sheet included • Size: 5" L x 3 1/4" H x 7/8" D

Part No. TB43896 Universal Timer Board **\$6.95**

ORDERING INSTRUCTIONS



(415) 592-8097
TELEX 176043

TERMS Domestic:

Prepaid, C.O.D., credit card or approved open account.
Net 30 days, F.O.B. Belmont. See detailed instructions below.

Foreign:

Prepaid or credit card only. U.S. Funds - money order or cashier's check only. See detailed instructions below.

VISA®

MasterCard

\$10.00 MINIMUM ORDER

| | |
|----------------------------|--|
| ADDRESS CHANGE. | Moved? Send your previous address & customer # and we will update our files so you may receive all mailings. |
| CATALOG. | Future mailings and special sale flyers will be limited to active buying customers only. FREE catalogs will otherwise be available upon written request by sending \$1.00 to cover postage and handling. |
| C.O.D. | Acceptable by telephone or mail. Payment from customer will be by cash, money order or company check. We cannot accept personal checks as payment on C.O.D. parcels. |
| CONFIRMING ORDERS. | We would prefer that confirming orders not be sent after a telephone order has been placed. If company policy necessitates a confirming order, please mark "confirming" boldly on the order. If problems or duplicate shipments occur due to an order which is not properly marked, customers will be held responsible for any charges incurred, PLUS A 15% RESTOCK CHARGE ON RETURNED PARTS. |
| CREDIT CARDS. | MasterCard and VISA charges are accepted by mail or telephone. Complete order form with card number, name, signature and expiration date. |
| CUSTOMER NUMBER. | A computerized customer number is issued to all persons receiving orders from Jameco. This number will be shown on your catalog mailing label or on a recent invoice. Please use your number when placing orders. |
| DATA SHEETS. | Data sheets are available upon request on most items. Information available is basic recommended operating conditions and electrical characteristics. Please include \$.30 for each data sheet requested. More information may be requested at an additional cost. |
| DEFECTIVE MATERIAL. | All claims for defective material must be made within sixty (60) days after receipt of parcel. All claims must include the defective material (for testing purposes), our invoice number, and the date of purchase. |
| DELIVERY. | Orders are normally shipped within 48 hours after receipt of customer's order. If a part is on backorder, customer will be advised immediately. Same day shipment requests will be made with the addition of a \$5.00 service charge. |
| FOREIGN ORDERS. | All foreign orders must be prepaid with credit card, cashier's check or money order drawn on a U.S. BANK IN U.S. FUNDS ONLY. LETTERS OF CREDIT are not an acceptable form of payment. Further information available on request. |
| HOURS. | Monday thru Friday (excluding holidays) 7:00 A.M. - 5:00 P.M. PST (Will Call Service 8:00 A.M. - 5:00 P.M.) |
| MINIMUM ORDER. | \$10.00 is the minimum order. |
| OPEN ACCOUNT. | We must have an approved credit application on file and/or a qualifying Dun & Bradstreet rating prior to shipment of open account orders. Credit application approval takes 4-6 weeks. All orders are Net 30 days, F.O.B. Belmont. |
| ORDER FORMS. | New order forms are included with each order for your convenience. Additional forms are available on request. |
| PRICES. | Prices and discounts are subject to change without prior notice. |
| RESTOCK CHARGE. | If parts are to be returned to Jameco due to customer error, customer will be held responsible for all extra fees, plus a 15% restock charge on all returned parts. |
| RETURNED CHECKS. | All checks returned for any reason will be subject to a \$10.00 fee. |
| SALES TAX. | 6½% tax must be charged to all orders delivered in California. Persons having a current California Resale Card on file with Jameco will be exempt from sales tax. |

SHIPPING DOMESTIC: Our normal shipping method is via First Class Mail or UPS, depending on the size and weight of parcel. If you have a preference, please specify. Add 5% of total order (minimum postage \$1.00) to cover cost of shipping and handling. Please include an additional \$1.50 for insurance.

FOREIGN: Our normal shipping method is via air mail or parcel post, depending on the size and weight of parcel. If you have a preference, please specify. Add 20% of total order (minimum postage \$2.00) to cover cost of shipping and handling. Please include an additional \$2.00 for insurance. We will insure, when requested, to all countries where insurance is available.

Priority service shipments (i.e. air freight, overnight delivery, etc.) are available, upon request, to most areas. Please contact us for further information.

POSTAGE FEES ARE ESTIMATED — EXCESS FUNDS WILL BE REFUNDED
WE ARE NOT RESPONSIBLE FOR UNINSURED PARCELS

SHORTAGE/DAMAGE. All claims for shortages or damages must be made within ten (10) days after receipt of parcel. Claims must include our invoice number and the date of purchase. Customers who do not notify us of problems with an order within this time period will be held responsible for the entire order, as we will consider the order complete.

TELEX. Telex Number 176043. Please include your telex number, company name and country for prompt response.

WILL CALL SERVICE. Available Monday thru Friday (excluding holidays) 8:00 A.M. to 5:00 P.M. Orders must be placed one hour prior to pick up so we may process the necessary paperwork (\$10.00 minimum order).



1355 Shoreway Road
Belmont, CA 94002
Telex: 176043

ORDER FORM



1985 CATALOG

For Faster Ordering,
Call: 415-592-8097
Monday thru Friday
7:00AM — 5:00PM P.S.T.

| Item No. | QTY. | PART NUMBER | DATA SHEETS | PRICE EACH | AMOUNT EXTENDED |
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DATA SHEETS (Add \$.30 per Data Sheet)

TOTAL DATA SHEETS

@ .30 each

DOMESTIC ORDERS: Postage & Handling: 5% of total order (\$1.00 min.) Excess will be refunded
Insurance: \$1.50 (not responsible for uninsured parcels)
Tax: 6½% (California Residents only)

Sub-Total
FRONT

Sub-Total
Add'l. Sheet

FOREIGN ORDERS: Postage & Handling: 20% of total order (\$2.00 min.) Excess will be refunded
Insurance: \$2.00 (only where postal regulations allow).
NOT RESPONSIBLE FOR UNINSURED PARCELS.
Payment: Cashier's Check or Money Order only (U.S. funds only)

TAX: 6½%
(CALIF. ONLY)

Postage

Please Ship My Order: ☐ Prepaid (Check enclosed) ☐ COD
☐ Net 30 Days (Account must be previously established)
☐ MasterCard ☐ VISA

Insurance

Credit Memo
(if applicable)

CUSTOMER NO. (See mailing label)

TOTAL

NAME

☐ VISA

☐ MASTERCARD

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AUTHORIZED SIGNATURE:

CITY

STATE

ZIP

Account Number

DAYTIME PHONE NO. ()

EXT.

NAME (Please Print)

Expiration

PURCHASE ORDER NUMBER

(FOR OFFICE USE ONLY)

AUTH#

DATE

BY

1985 JAMECO CATALOG AVAILABLE — SEND \$1.00 TO COVER POSTAGE AND HANDLING

| Item No. | QTY. | PART NUMBER | Data Sheets | PRICE EACH | AMOUNT EXTENDED |
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1355 Shoreway Road
Belmont, CA 94002
Telex: 176043

ORDER FORM



1985 CATALOG

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Call: 415-592-8097
Monday thru Friday
7:00 AM — 5:00 PM P.S.T.

| Item No. | QTY. | PART NUMBER | DATA SHEETS | PRICE EACH | AMOUNT EXTENDED |
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\$10.00 MINIMUM ORDER

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| DATA SHEETS (Add \$.30 per Data Sheet) | | TOTAL DATA SHEETS | <input type="text"/> | @ .30 each |
| DOMESTIC ORDERS: | | Postage & Handling: 5% of total order (\$1.00 min.) Excess will be refunded Insurance: \$1.50 (not responsible for uninsured parcels) Tax: 6 1/2 % (California Residents only) | | Sub-Total FRONT |
| FOREIGN ORDERS: | | Postage & Handling: 20% of total order (\$2.00 min.) Excess will be refunded Insurance: \$2.00 (only where postal regulations allow). NOT RESPONSIBLE FOR UNINSURED PARCELS. Payment: Cashier's Check or Money Order only (U.S. funds only) | | Add'l. Sheet |
| Please Ship My Order: | | <input type="checkbox"/> Prepaid (Check enclosed) <input type="checkbox"/> COD <input type="checkbox"/> Net 30 Days (Account must be previously established) <input type="checkbox"/> MasterCard <input type="checkbox"/> VISA | | TAX - 6 1/2 % (CALIF. ONLY) |
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| CUSTOMER NO. (See mailing label) | | | | TOTAL |

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| NAME | | | <input type="checkbox"/> VISA <input type="checkbox"/> MASTERCARD | |
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| CITY | STATE | ZIP | Account Number | |
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| PURCHASE ORDER NUMBER | | Expiration | | |
| <small>(FOR OFFICE USE ONLY)</small> AUTH# DATE BY | | | | |

1985 JAMECO CATALOG AVAILABLE — SEND \$1.00 TO COVER POSTAGE AND HANDLING

| Item No. | QTY. | PART NUMBER | Data Sheets | PRICE EACH | AMOUNT EXTENDED |
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— ENCLOSE COMPLETED ORDER FORM WITH PAYMENT —

NEW! Educational Electronic Robot Kits!

These clever, inexpensive robot kits feature pre-assembled pc boards, hardware and mechanical-drive systems that can be handled by anyone. Only basic hand tools are required for assembly. OWI's MOVIT line has provided the future with an innovative electronic educational kit. They are affordable robots that can entertain as well as educate.

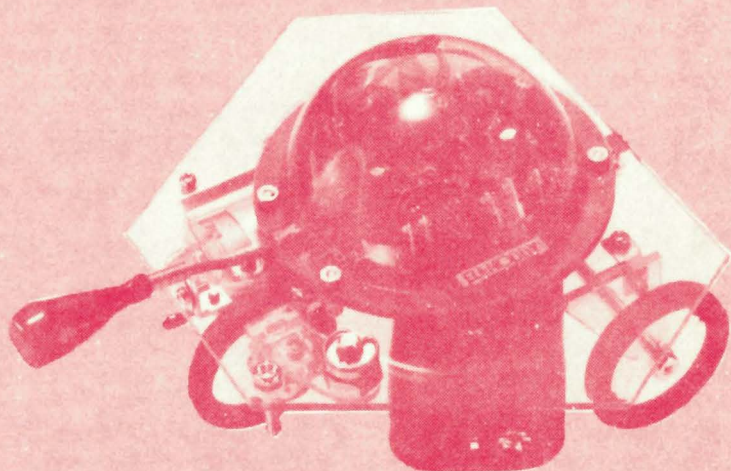
PEPPY

The PEPPY has a two-way sensor that is susceptible to noise and also to solid objects in its path. When the sensor located in front comes into contact with a wall or other obstacle, or hears a loud noise such as a hand clap, it will automatically turn to the left. The PEPPY, after contacting the wall, by reversing and at the same time turning to the left will turn through 90° to 180° and resume its new course until it hits another object in its path. It is a new and exciting microgaige robot which is sure to give many happy hours to all the family.

- Power source: 2 each AA batteries (not included)
- Color: pink • Size: 4.75" Radius x 2.75"H

OWI

***Clever, inexpensive
robot kits!***



MV-916 Peppy Sound/Touch Sensor Robot Kit. \$24.95

— PLEASE SEE CATALOG FOR THE ENTIRE MOVIT LINE OF ROBOT KITS —

FROM: _____



1985 CATALOG

Mail Order Electronics - Worldwide[®]
Jameco
ELECTRONICS

1355 SHOREWAY ROAD
BELMONT, CALIFORNIA 94002

— ENCLOSE COMPLETED ORDER FORM WITH PAYMENT —

NEW! Educational Electronic Robot Kits!

These clever, inexpensive robot kits feature pre-assembled pc boards, hardware and mechanical-drive systems that can be handled by anyone. Only basic hand tools are required for assembly. OWI's MOVIT line has provided the future with an innovative electronic educational kit. They are affordable robots that can entertain as well as educate.

PEPPY

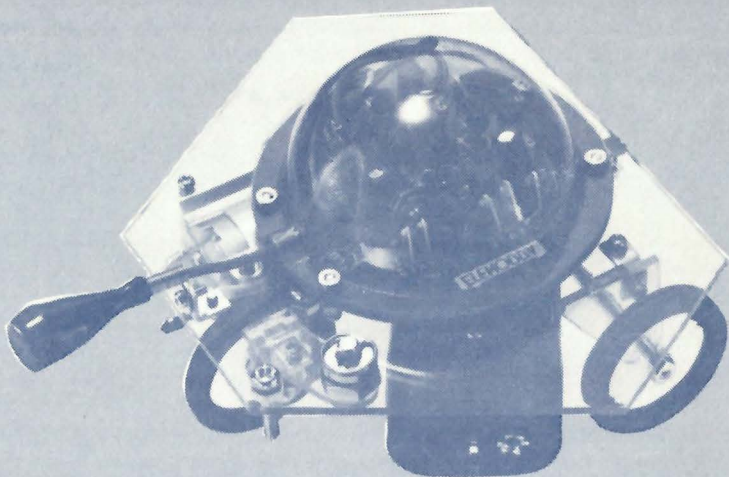
The PEPPY has a two-way sensor that is susceptible to noise and also to solid objects in its path. When the sensor located in front comes into contact with a wall or other obstacle, or hears a loud noise such as a hand clap, it will automatically turn to the left. The PEPPY, after contacting the wall, by reversing and at the same time turning to the left will turn through 90° to 180° and resume its new course until it hits another object in its path. It is a new and exciting micro-age robot which is sure to give many happy hours to all the family.

- Power source: 2 each AA batteries (not included)
- Color: pink • Size: 4.75" Radius x 2.75"H

MV-916 Peppy Sound/Touch Sensor Robot Kit. \$24.95



***Clever, inexpensive
robot kits!***



— PLEASE SEE CATALOG FOR THE ENTIRE MOVIT LINE OF ROBOT KITS —

FROM: _____

**AFFIX
STAMP
HERE**



1355 SHOREWAY ROAD
BELMONT, CALIFORNIA 94002

1985 CATALOG

*Please attach check to back of Order Form, upper left hand corner



1355 Shoreway Road
Belmont, CA 94002
Telex: 176043

1985 CATALOG ORDER FORM



For Faster Ordering,
Call: 415-592-8097
Monday thru Friday
7:00AM - 5:00PM P.S.T.

PRICES TAKEN FROM: ☐ JAMECO CATALOG ☐ MAGAZINE

☐ FLYER NO.

| Item No. | QTY. | PART NUMBER | DATA SHEETS | PRICE EACH | AMOUNT EXTENDED |
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DATA SHEETS (Add \$.30 per Data Sheet)

TOTAL DATA SHEETS

@ .30 each

DOMESTIC ORDERS:

Postage & Handling: 5% of total order (\$1.00 min.) Excess will be refunded
Insurance: \$1.50 (not responsible for uninsured parcels)
Tax: 6 1/2 % (California Residents only)

Sub-Total
FRONT

Sub-Total
Back

FOREIGN ORDERS:

Postage & Handling: 20% of total order (\$2.00 min.) Excess will be refunded
Insurance: \$2.00 (only where postal regulations allow).
NOT RESPONSIBLE FOR UNINSURED PARCELS.
Payment: Cashier's Check or Money Order only (U.S. funds only)

TAX-6 1/2 %
(CALIF. ONLY)

Postage

Please Ship My Order:

☐ Prepaid (Check enclosed) ☐ COD
☐ Net 30 Days (Account must be previously established)
☐ MasterCard ☐ VISA

Insurance

Credit Memo
(if applicable)

PLEASE FILL OUT ORDER FORM COMPLETELY

CUSTOMER NO. (See mailing label)

TOTAL

NAME

☐ VISA ☐ MASTERCARD

SHIP TO ADDRESS:

AUTHORIZED SIGNATURE:

CITY

STATE

ZIP

Account Number

DAYTIME PHONE NO. ()

EXT.

NAME (Please Print)

Expiration
Date

PURCHASE ORDER NUMBER

(FOR OFFICE USE ONLY)

AUTH #

DATE

BY

1985 JAMECO Catalog and Sale Flyer mailings will be limited to active buying customers only.

NATIONAL/LITRONIX and HP DISPLAYS

DL-4509
LITRONIX



**CLOSE
OUT!**



NSB2100
NATIONAL

**CLOSE
OUT!**



5082-7750
HEWLETT PACKARD

NATIONAL/LITRONIX and HP SINGLE DIGIT DISPLAYS

| Part No. | Socket Required | Size | Color | Description | Price | Part No. | Socket Required | Size | Color | Description | Price |
|-----------|-----------------|------|--------|----------------------------|-------|-----------|-----------------|------|--------|--------------------------------------|-------|
| MAN62 | 14 | .300 | Yellow | CA (LHDP) | .29 | 5082-7656 | 14 | .430 | Red | O.F. ± 1 (RHDP) Hi-Eff (DLO7656) | .49 |
| NSN64R | 24 | .630 | Red | CC (RHDP) DL750 | .59 | 5082-7660 | 14 | .430 | Yellow | CA (LHDP) | .39 |
| 5082-7300 | 24 | .600 | Red | 4x7 Num. (RHDP) | 14.95 | 5082-7661 | 14 | .430 | Yellow | CA (RHDP) (NSN7661) | .75 |
| 5082-7302 | 24 | .600 | Red | 4x7 Num. (LHDP) | 14.95 | 5082-7663 | 14 | .430 | Yellow | CC (RHDP) | .49 |
| 5082-7304 | 24 | .600 | Red | O.F. (=1) for 5082-7300/02 | 14.95 | 5082-7670 | 14 | .430 | Green | CA (LHDP) (NSN7670) | .49 |
| 5082-7340 | 24 | .600 | Red | 4x7 Hex. (0-9/A-F) | 14.95 | 5082-7673 | 14 | .430 | Green | CC (RHDP) (NSN7673) | .75 |
| 5082-7432 | 14 | .110 | Red | CC (2-Digit/3-Bubble) | .19 | 5082-7676 | 14 | .430 | Green | O.F. ± 1 (RHDP) (NSN7676) | .75 |
| 5082-7620 | 14 | .300 | Yellow | CA (LHDP) | .49 | 5082-7730 | 14 | .300 | Red | CA (LHDP) | .75 |
| 5082-7623 | 14 | .300 | Yellow | CC (RHDP) | .49 | 5082-7731 | 14 | .300 | Red | CC (RHDP) | .75 |
| 5082-7630 | 14 | .300 | Green | CA (LHDP) | .75 | 5082-7740 | 14 | .300 | Red | CC (RHDP) Hi-Eff (7740R) | .75 |
| 5082-7633 | 14 | .300 | Green | CC (RHDP) Hi-Eff | .49 | 5082-7750 | 14 | .430 | Red | CA (LHDP) | .39 |
| 5082-7650 | 14 | .430 | Red | CA (LHDP) Hi-Eff (DLO7650) | .49 | 5082-7751 | 14 | .430 | Red | CA (RHDP) | .49 |
| 5082-7651 | 14 | .430 | Red | CA (RHDP) Hi-Eff (DLO7651) | .75 | 5082-7756 | 14 | .430 | Red | O.F. ± 1 (RHDP) (NSN7756) | .49 |
| 5082-7653 | 14 | .430 | Red | CC (RHDP) (DLO7653) | .39 | 5082-7760 | 14 | .430 | Red | CC (RHDP) (DLO7760) | .75 |

CA = COMMON ANODE

CC = COMMON CATHODE

LHDP = LEFT HAND DECIMAL POINT

RHDP = RIGHT HAND DECIMAL POINT

LITRONIX MULTI-DIGIT REFLECTOR ARRAYS -P.C. BOARD MOUNTED -

| PART NUMBER COLOR | CHAR. HT. (IN.) | POLARITY | DESCRIPTION SEGMENT/DIGIT | OVERALL SIZE Length x Height x Depth | LIGHT OUTPUT (MCD) | | | FORWARD VOLTAGE SEGMENT (V) I _F = 20mA | | CONTINUOUS FORWARD CURRENT PER SEGMENT (mA) MAX | Avail. Qty. | Close-Out Price |
|----------------------|-----------------------|----------|------------------------------|--|-----------------------|-----|-----|---|-----|---|----------------|--------------------|
| | | | | | TYP | MIN | @mA | TYP | MIN | | | |
| DL-2300 (Red) | .30 | CC MPX | 7 Seg. 2-Digit RHDP | 13/16" x 7/8" x 1/4" | 2.5 | 1.1 | 20 | 1.7 | 2.0 | 30 | 700 | .25 |
| DL-2310 (Red) | .30 | CA MPX | 7 Seg. 2-Digit (No Dec.) | .794" x .750" x .194" | 2.8 | 1.5 | 10 | 1.7 | 2.0 | 30 | 50,000 | .25 |
| FNA3223 (Red) | .30 | CA MPX | 7-Seg. 2-Digit (No Dec.) | .794" x .750" x .194" | 2.8 | 1.5 | 10 | 1.7 | 2.0 | 30 | 20,000 | .25 |
| DL-4509 (Red) | .50 | CC MPX | 9 Seg. 4-Digit RHDP | 2" x 1-5/16" x 5/16" | .8 | .5 | 10 | 1.7 | 2.0 | 30 | 3000 | .75 |

NATIONAL LED NUMERIC ARRAYS

P.C. board mounted, magnified monolithic, 7-segment red digits intended for applications requiring small, low cost numeric indication. APPLICATIONS: Calculator Sticks, LED Watches, Data Terminals, Instrumentation, Timers and Hand-Held Instruments.

| PART NO. | DIGIT SIZE (RED) | FORMAT | DRIVE Comm. Cathode / Comm. Anode | OVERALL SIZE | Avail. Qty. | Close Out! |
|----------|-----------------------|------------------|--------------------------------------|-------------------------------|----------------|---------------|
| NSA0088 | .100 (9 Bubble Stick) | 8.8.8.8.8.8.8.8. | CC 8 Digit Multiplexed | 1-1/16" L x 7/16" H x 3/16" D | 3000 | .15 |
| NSA0098 | .100 (9 Bubble Stick) | 8.8.8.8.8.8.8.8. | CC 9 Digit Multiplexed | 1-1/16" L x 7/16" H x 3/16" D | 2350 | .15 |
| NSA1150 | .100 (9 Bubble Stick) | 8 8 8 : 8 8 | CC 5 Digit Multiplexed | 2" L x .72" H x .27" D | 8000 | .10 |
| NSA1540 | .140 (8 Bubble Stick) | 8.8.8.8. | CC 4 Digit Multiplexed | 2-1/16" L x .72" H x .27" D | 2100 | .15 |
| NSA1583 | .140 (9 Bubble Stick) | 8.8.8.8.8.8.8.8. | CC 9 Digit Multiplexed | 2-3/8" L x .72" H x .27" D | 6000 | .15 |

NATIONAL MULTI-DIGIT LED NUMERIC DISPLAYS

P.C. board mounted, easy-to-read displays with a wide viewing angle & excellent ON-OFF contrast. 2- & 4-digit displays are end-stackable. APPLICATIONS: Industrial Controls, Data Terminals, Test Equipment, Point-of-Sale, Mini-Computer Readout, and Home Computer applications.

| | | | | | | |
|-----------|---------------|------------------|---------------------------------|---|------|------|
| NSN66A | .125 | 8.8.8.8.8.8. | CC 6 Digit Multiplexed | 2" L x 11/16" H x 3/16" D | 24K | .15 |
| NSN69 | .11 | 8.8.8.8.8.8.8.8. | CC 9 Digit Multiplexed | 2-3/8" L x 11/16" H x 3/16" D | 3800 | .39 |
| NSN301 | .3 (yellow) | 8.8. | CA 2 Digit Direct | 2" L x 1" H x 1/4" D | 1000 | .49 |
| NSN334 | .3 No Decimal | 8.8. | CA 2 Digit Direct | 13/16" L x 7/8" H x 1/4" D | 1000 | .49 |
| NSN373 | .3 No Decimal | 8.8. | CC 2 Digit Direct | .80" L x .80" H x .225" D | 14K | .25 |
| NSN382 | .3 | 8.8. | CA 2 Digit Multiplexed | .80" L x .80" H x .225" D | 15K | .29 |
| NSN507 | .5 | 8.8. | CA 2 Digit Direct | 1" L x 1" H x 5/16" D (7/16" pins) | 5K | .39 |
| NSN582 | .5 | 8.8. | CA 2 Digit Multiplexed | 1" L x 1.05" H x .28" D | 2000 | .39 |
| NSN781 | .7 | 8.8. | CC 2 Digit Multiplexed | 1.2" L x 1.25" H x .3" D | 1K | .59 |
| NSB2100 | .3 | 8.8.8.8.8.8.8.8. | CC 8 Digit (10 Spaces) Multi. | 4" L x .60" H x .250" D | 4000 | .19 |
| NSB3411 | .3 | PM 8.8.8.8. | CC 4 Digit - Colon/PM Ind. Mux | 1-9/16" L x 13/16" H x 3/16" D | 17K | .25 |
| NSB3652 | .3 | ° 8.8.8.8. | CC 6 Dig-AM/PM, Fail. Ind. Mux | 3" L x 1.10" H x 7/32" D | 500 | .99 |
| NSB3881* | .3 | 8.8.8.8. | CC 4 Digit Multiplexed | 1.59" L x .80" H x .225" D | 1000 | 4.95 |
| NSB3882* | .3 | 8.8.8.8. | CA 4 Digit Multiplexed | 1.59" L x .80" H x .225" D | 1000 | 3.95 |
| NSB5382* | .5 | ± 1.8.8.8. | CA 3 1/2 Digit Multiplexed | 1.99" L x 1" H x .28" D | 600 | 4.95 |
| NSB5441 | .5 | ° 8.8.8.8. | CA 4 Digit - AM/PM, Colon Ind. | 3" L x 1.10" H x .282" D | 600 | 1.49 |
| NSB5881* | .5 | 8.8.8.8. | CC 4 Digit Multiplexed | 1.99" L x 1" H x .28" D | 1000 | 4.95 |
| NSB5882* | .5 | 8.8.8.8. | CA 4 Digit Multiplexed | 1.99" L x 1" H x .28" D | 800 | 4.95 |
| NSB5918 | .5 | + 8.8.8.8. | CC 3 1/2 Digit Multiplexed | 3" L x 1.10" H x .282" D | 2500 | .99 |
| NSB5922 | .5 | 8.8.8.8.8.8. | CA 5 Digit Multiplexed | 3" L x 1.10" H x .282" D | 4800 | .99 |
| NSB7923** | .7 | 8.8.8.8.8.8. | CC 6 Digit Multiplexed / Direct | 3.60" L x 1.35" H x .292" D (5/8" pins) | 3000 | 1.95 |

*STANDARD STOCK ITEM - ONLY PIN SPECIFICATIONS AVAILABLE ON NON-STOCKED ITEMS

**CAN BE BOTH MUX / DIRECT BY CONNECTING ALL SEGMENTS TOGETHER

OPTOELECTRONICS

SC-Single Channel OPTO-ISOLATORS CTR-Current Transfer Ratio

| Part No. | Socket Required | Description | Price |
|----------|-----------------|---|-------|
| IL-1 | 8 | SC 50% CTR, 2500V (LIT-1) | \$.69 |
| MCT-6 | 8 | Dual Photo Trans. 1500V (ILD74) | 1.95 |
| H11C3 | 8 | SCR Output Opto-Isolators | .89 |
| 4N25 | 8 | SC 50% CTR, 2500V (MCT-2/LIT-1) | .69 |
| 4N26 | 8 | SC 50% CTR, 1500V (Photo-Trans.) | .69 |
| 4N28 | 8 | SC 50% CTR, 500V (Photo-Trans.) MOC1003 | .59 |
| 4N33 | 8 | SC 500% 1500V (Photo-Darl.) 4N32 | .89 |
| TIL112 | 8 | SC Opto-Coupler 1500V | .49 |
| MOC-1006 | 8 | SC Opto-Coupler 5000V | 1.29 |
| MOC3010 | 8 | Optically Isolated Triac Driver | 1.25 |

Typical Forward Voltage 1.60-2.20V

Typical DC Forward Current 50mA

LEDs

R-Red • G-Green • Y-Yellow
C-Clear • A-Amber

6V MINI LAMP
INCANDESCENT

| Part No. | 1-99 | 100 + |
|----------|---------------------------|----------|
| 800-147 | Clear w/5' leads 9/\$1.00 | \$10 ea. |
| 80620 | Red w/5' leads 9/\$1.00 | .09 ea. |

DIFFUSED BI-COLOR/TRI-STATE

Reverse polarity to change color.

200 (T1%) Red/Green

| Part No. | 1-99 | 100 + |
|----------|-------|----------|
| XC5491 | \$4.9 | \$39 ea. |

125 (T1%)

| Part No. | 1-99 | 100 + |
|----------|----------|----------|
| XC209R | 5/\$.69 | \$10 ea. |
| XC209G | 4/\$1.00 | 20 ea. |
| XC209Y | 4/\$1.00 | 20 ea. |

200 (T1%)

| Part No. | 1-99 | 100 + |
|----------|----------|----------|
| XC554R | 5/\$1.00 | \$17 ea. |
| XC554G | 4/\$1.00 | 20 ea. |
| XC554Y | 4/\$1.00 | 20 ea. |
| XC554C | 4/\$1.00 | 20 ea. |

170 Dia. (TO 18)

| Part No. | 1-99 | 100 + |
|----------|----------|----------|
| MT10B | 4/\$1.00 | \$20 ea. |

POINT SOURCE (RED)

085 (T 1%)

| Part No. | 1-99 | 100 + |
|----------|----------|----------|
| MTV50 | 6/\$1.00 | \$15 ea. |

POINT SOURCE (RED)

160 Tapered (Short)

| Part No. | 1-99 | 100 + |
|----------|---------|----------|
| RL-2-02 | 5/\$.79 | \$13 ea. |

New! Diffused Bi-Color T1 1/4 .200 Red/Green

1 2 3

| Part No. | 1-99 | 100 + |
|----------|-------|-------|
| LTL-52RG | | \$59 |

Leads: 1) Green 2) Comm. Cath. 3) Red

DIFFUSED 200 (T1%)

| Part No. | 1-99 | 100-999 | 1000 + |
|----------|---------|---------|---------|
| XC556R | 5/\$.69 | 11 ea. | .09 ea. |
| XC556G | 4/\$.79 | 17 ea. | .15 ea. |
| XC556Y | 4/\$.79 | 17 ea. | .15 ea. |
| XC556C | 4/\$.79 | 17 ea. | .15 ea. |
| XC556A | 4/\$.79 | 17 ea. | .15 ea. |

DIFFUSED RECTANGULAR

Case Size: 150W x 250L x 271H
Lead Length: 13/16" (Picture misleading)

| Part No. | 1-99 | 100 + |
|----------|----------|----------|
| XC5124G | 3/\$1.00 | \$29 ea. |
| XC5124Y | 3/\$1.00 | 29 ea. |
| XC5124R | 4/\$.69 | 13 ea. |

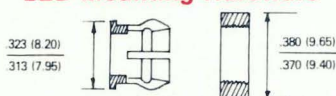
CLIPLITE LED Mounting System

CLIPLITE mounts from the front of the panel in a .250 hole on 3/8" centers. Panel thickness from 1/16" to 1/8". CLIPLITE equalizes and increases the brightness of commonly used wide beam LEDs. CLIPLITE will accept LED diameters from .160 to .210 dia. Can be used with XC22, XC111, XC526, XC554 and XC556 Series.

PRICING

| Part No. | Color | 4-99 | 100-999 | 1000 + |
|----------|--------|---------|---------|---------|
| RTP280 | Red | 4/\$.80 | .16 ea. | .13 ea. |
| GTP280 | Green | 4/\$.80 | .16 ea. | .13 ea. |
| CTP280 | Clear | 4/\$.80 | .16 ea. | .13 ea. |
| ATP280 | Amber | 4/\$.80 | .16 ea. | .13 ea. |
| YTP280 | Yellow | 4/\$.80 | .16 ea. | .13 ea. |

LED Mounting Hardware



— Black Plastic Clip & Ring —

Mounts in panels up to .125" thick. Drill .257" diameter hole (F Drill). Can be used with XC22, XC111, XC526, XC554 and XC556 Series (from .160" to .200 Dia.)

PRICING

| Part No. | 8-99 | 100-999 | 1000 + |
|----------|----------|---------|---------|
| LMH-200 | 8/\$1.00 | .08 ea. | .06 ea. |

CA — Common Anode DISPLAYS LHDP-Left Hand Decimal Point
CC — Common Cathode RHDP-Right Hand Decimal Point

| Part No. | Socket Required | Size | Color | Description | Price |
|-----------|-----------------|------|--------|---------------------------------|------------------------|
| DL0307 | 14 | .300 | Orange | CA (LHDP) | \$.99 |
| DLG500 | 24 | .500 | Green | CC (RHDP) | .99 |
| DL702 | 14 | .300 | Red | CC (LHDP) | Obsolete—See NSN74L |
| DL704 | 14 | .300 | Red | CC (RHDP) SEA 3111 | 1.25 |
| DL707 | 14 | .300 | Red | CA (LHDP) MAN72 | 1.25 |
| DL728 | 24 | .510 | Red | CC (RHDP) MAN6610 | 1.19 |
| DL746 | 24 | .630 | Red | CA (+1) Over Flo | 1.19 |
| DL747 | 24 | .630 | Red | CA (LHDP) | Obsolete—See HDSF-3401 |
| DL750 | 24 | .630 | Red | CC (LHDP) | 1.25 |
| DL2300 | — | .300 | Red | CC (RHDP) 2 Digit MPX | .25 |
| DL2310 | — | .300 | Red | CA (No Dec.) 2 Digit MPX | .25 |
| FNA3223 | — | .300 | Red | CA (No Dec.) 2 Digit MPX | .25 |
| FND350 | 10 | .362 | Red | CA (RHDP) | .75 |
| FND357 | 10 | .362 | Red | CC (RHDP) SEA 3410 | .89 |
| FND501 | 24 | .500 | Red | CC (+1) O.F. (RHDP) | .99 |
| FND503 | 24 | .500 | Red | CC (RHDP) FND500/DL500B | .99 |
| FND507 | 24 | .500 | Red | CA (RHDP) FND510 | .99 |
| FND508 | 24 | .500 | Red | CA (+1) O.F. (RHDP) | .99 |
| FND803 | 24 | .800 | Red | CC (RHDP) FND800 | 1.25 |
| FND807 | 24 | .800 | Red | CA (RHDP) FND810 | 1.25 |
| FND847 | 24 | .800 | Red | CA (RHDP) | 1.25 |
| HDSF-3401 | 24 | .800 | Red | CA (RHDP & LHDP) SEA8000 | 1.25 |
| HDSF-3405 | 24 | .800 | Red | CC (LHDP) (20mm) | 1.25 |
| HDSF-3406 | 24 | .800 | Red | CC (RHDP) (+1) O.F. (20mm) | 1.25 |
| MAN1 | 14 | .270 | Red | CA (LHDP) | 1.95 |
| MAN2 | 14 | .320 | Red | 5x7 Alphanumeric (TIL305) | 3.95 |
| MAN52 | 14 | .300 | Green | CA (LHDP) DLG307 | .69 |
| MAN54 | 14 | .300 | Green | CC (RHDP) DLG304 | .69 |
| MAN71 | 14 | .300 | Red | CA (RHDP) | .75 |
| MAN72 | 14 | .300 | Red | CA (LHDP) SEA3101 | .75 |
| MAN73 | 14 | .300 | Red | CA (+1) Over Flo | .75 |
| MAN74 | 14 | .300 | Red | CC (RHDP) XAN3064 | .99 |
| MAN82 | 14 | .300 | Yellow | CA (LHDP) | .29 |
| MAN84 | 14 | .300 | Yellow | CC (RHDP) | .69 |
| MAN3610 | 14 | .300 | Orange | CA (RHDP) | .39 |
| MAN3620 | 14 | .300 | Orange | CA (LHDP) | .69 |
| MAN3630 | 14 | .300 | Orange | CA (+1) Over Flo | .39 |
| MAN6610 | 24 | .560 | Orange | CA (RHDP) 2 Digit | .99 |
| MAN6630 | 24 | .560 | Orange | CA (+1) 1 1/2 Digit | .99 |
| MAN6640 | 24 | .560 | Orange | CC (RHDP) 2 Digit | 1.95 |
| MAN6650 | 24 | .560 | Orange | CC (+1) 1 1/2 Digit | .99 |
| MAN6660 | 24 | .560 | Orange | CA (RHDP) | .99 |
| MAN6710 | 24 | .560 | Red | CC (RHDP) 2 Dig. (MAN6910) | .99 |
| MAN6740 | 24 | .560 | Red | CC (RHDP) 2 Digit | 1.49 |
| MAN6750 | 24 | .560 | Red | CC (+1) 1 1/2 Digit | .99 |
| NSN61L | 24 | .630 | Red | CA (LHDP) (HDSF-3401) | .89 |
| NSN64R | 24 | .630 | Red | CC (RHDP) DL750 | .59 |
| NSN74L | 14 | .300 | Red | CC (LHDP) DL702 | .99 |
| NSN301 | — | .300 | Yellow | CA (2 Digit-Direct) | .49 |
| NSN334 | — | .300 | Red | CA (2 Digit-Direct) No Dec. | .49 |
| NSN373 | — | .300 | Red | CC (2 Digit-Direct) No Dec. | .25 |
| NSN382 | — | .300 | Red | CA (2 Digit-MPX) | .29 |
| NSN507 | — | .500 | Red | CA (2 Digit-Direct) | .39 |
| NSN582 | — | .500 | Red | CA (2 Digit-MPX) | .39 |
| NSN781 | — | .700 | Red | CC (2 Digit-MPX) | .59 |
| TIL308 | 16 | .270 | Red | Num. Disp. w/Logic | 10.95 |
| TIL311 | 14 | .270 | Red | 4x7 Hex. w/Logic | 10.95 |
| TIL313 | 14 | .300 | Red | CC (RHDP) | 1.25 |
| 5082-7300 | 24 | .600 | Red | 4x7 Num. (RHDP) | 14.95 |
| 5082-7302 | 24 | .600 | Red | 4x7 Num. (LHDP) | 14.95 |
| 5082-7304 | 24 | .600 | Red | O.F. (+1) for 5082-7300/02 | 14.95 |
| 5082-7340 | 24 | .600 | Red | 4x7 Hex (0-9/A-F) | 14.95 |
| 5082-7432 | 14 | .110 | Red | CC (2-Digit/3-Bubble) | .19 |
| 5082-7620 | 14 | .300 | Yellow | CA (LHDP) | .49 |
| 5082-7623 | 14 | .300 | Yellow | CC (RHDP) | .49 |
| 5082-7630 | 14 | .300 | Green | CA (LHDP) | .75 |
| 5082-7633 | 14 | .300 | Green | CC (RHDP) Hi-Eff | .49 |
| 5082-7650 | 14 | .430 | Red | CA (LHDP) Hi-Eff (DL07650) | .49 |
| 5082-7651 | 14 | .430 | Red | CA (RHDP) Hi-Eff (DL07651) | .75 |
| 5082-7653 | 14 | .430 | Red | CC (RHDP) (DL07653) | .39 |
| 5082-7656 | 14 | .430 | Red | O.F. +1 (RHDP) Hi-Eff (DL07656) | .39 |
| 5082-7660 | 14 | .430 | Yellow | CA (LHDP) | .39 |
| 5082-7661 | 14 | .430 | Yellow | CA (RHDP) (NSN7661) | .75 |
| 5082-7663 | 14 | .430 | Yellow | CC (RHDP) | .49 |
| 5082-7670 | 14 | .430 | Green | CA (LHDP) (NSN7670) | .49 |
| 5082-7673 | 14 | .430 | Green | CC (RHDP) (NSN7673) | .75 |
| 5082-7676 | 14 | .430 | Green | O.F. +1 (RHDP) (NSN7676) | .75 |
| 5082-7730 | 14 | .300 | Red | CA (LHDP) | .75 |
| 5082-7731 | 14 | .300 | Red | CA (RHDP) | .75 |
| 5082-7740 | 14 | .300 | Red | CC (RHDP) Hi-Eff (7740R) | .75 |
| 5082-7750 | 14 | .430 | Red | CA (LHDP) | .39 |
| 5082-7751 | 14 | .430 | Red | CA (RHDP) | .49 |
| 5082-7756 | 14 | .430 | Red | O.F. +1 (RHDP) (NSN7756) | .49 |
| 5082-7760 | 14 | .430 | Red | CC (RHDP) (DL7760) | .75 |

—Inquiries welcome for quantity discounts—

WIRE, CABLE, AND POWER CORDS



30 AWG KYNAR WIRE WRAP SOLID CONDUCTOR WIRE

| PART NO. | AWG | COLOR | 25 FT. (Min.) | 100 FEET | 1000 FEET |
|----------|--------|--------|---------------|----------|-----------|
| 130BE | 30 AWG | Blue | \$1.49 lot | \$2.95 C | \$22.95 M |
| 130BK | 30 AWG | Black | \$1.49 lot | \$2.95 C | \$22.95 M |
| 130G | 30 AWG | Green | \$1.49 lot | \$2.95 C | \$22.95 M |
| 130R | 30 AWG | Red | \$1.49 lot | \$2.95 C | \$22.95 M |
| 130W | 30 AWG | White | \$1.49 lot | \$2.95 C | \$22.95 M |
| 130Y | 30 AWG | Yellow | \$1.49 lot | \$2.95 C | \$22.95 M |

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



28 AWG Stranded Flat Multi-Colored RIBBON CABLE

| PART NO. | Conductors | COLOR | 1-19 FEET | 20-99 FEET | 100 FEET |
|----------|------------|-------|-----------|------------|------------|
| 201-14 | 14 | Multi | \$.39 | \$.37 | \$ 34.95 C |
| 201-16 | 16 | Multi | \$.49 | \$.45 | \$ 39.95 C |
| 201-25 | 25 | Multi | \$.79 | \$.69 | \$ 62.95 C |
| 201-34 | 34 | Multi | \$1.15 | \$.95 | \$ 84.95 C |
| 201-40 | 40 | Multi | \$1.29 | \$1.15 | \$ 99.95 C |
| 201-50 | 50 | Multi | \$1.69 | \$1.45 | \$123.95 C |

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



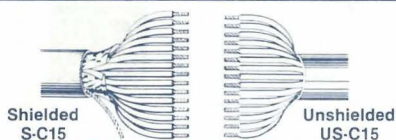
28 AWG Flat Grey Stranded

Uses: Dip Jumpers,
Insulation Displacement
Connectors & Cable
Assemblies.

RIBBON CABLE

| PART NO. | Conductors | COLOR | 1-19 FEET | 20-99 FEET | 100 FEET |
|----------|------------|-------|-----------|------------|-----------|
| 171-9 | 9 | Grey | \$.19 | \$.16 | \$12.95 C |
| 171-14 | 14 | Grey | \$.25 | \$.24 | \$20.95 C |
| 171-15 | 15 | Grey | \$.27 | \$.25 | \$21.95 C |
| 171-16 | 16 | Grey | \$.29 | \$.26 | \$22.95 C |
| 171-20 | 20 | Grey | \$.36 | \$.32 | \$27.95 C |
| 171-24 | 24 | Grey | \$.45 | \$.39 | \$34.95 C |
| 171-25 | 25 | Grey | \$.47 | \$.40 | \$35.95 C |
| 171-26 | 26 | Grey | \$.49 | \$.41 | \$36.95 C |
| 171-34 | 34 | Grey | \$.62 | \$.55 | \$47.95 C |
| 171-36 | 36 | Grey | \$.65 | \$.58 | \$50.95 C |
| 171-37 | 37 | Grey | \$.69 | \$.59 | \$51.95 C |
| 171-40 | 40 | Grey | \$.75 | \$.70 | \$64.95 C |
| 171-50 | 50 | Grey | \$.89 | \$.79 | \$69.95 C |

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



Shielded - Unshielded Communication Cable

| PART NO. | Conductors | Description | 1-25 FEET | 26-99 FEET | 100 FEET |
|----------|------------|-------------|-----------|------------|-----------|
| US-C4 | 4 | Unshielded | \$.19 | \$.17 | \$14.95 C |
| US-C9 | 9 | Unshielded | \$.45 | \$.39 | \$34.95 C |
| US-C15 | 15 | Unshielded | \$.59 | \$.55 | \$49.95 C |
| US-C25 | 25 | Unshielded | \$.89 | \$.85 | \$79.95 C |
| S-C4 | 4 | Shielded | \$.29 | \$.25 | \$19.95 C |
| S-C9 | 9 | Shielded | \$.59 | \$.55 | \$44.95 C |
| S-C15 | 15 | Shielded | \$.79 | \$.69 | \$59.95 C |
| S-C25 | 25 | Shielded | \$.99 | \$.95 | \$89.95 C |

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



Coaxial CABLE

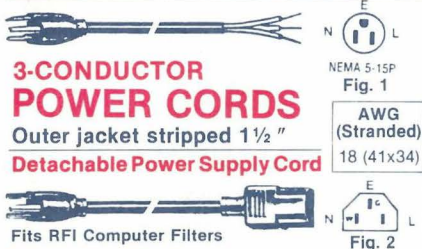
| PART NO. | 1-19 FEET | 20-99 FEET | 100-999 FEET | 1000 FEET |
|-------------------|-----------|------------|--------------|------------|
| RG58C/U (50 ohm) | \$.39 | \$.32 | \$26.95 C | \$199.95 M |
| RG59B/U* (75 ohm) | \$.41 | \$.34 | \$28.95 C | \$219.95 M |

*Used on Cable TV

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING

Uses: CB, Ham, Microphones, Language Labs, Music Equipment, Mobile Equipment, Etc.
• 2 Conductor 22AWG (26/36) tinned soft copper PVC insulated • 19" coiled (stretches to 8 feet)
• Long flex life • Resistant to effects of sun, oil, ozone • Recommended for outdoor use

1700 Available RETRACTILE MICROPHONE CABLES



3-CONDUCTOR POWER CORDS

Outer jacket stripped 1 1/2"
Detachable Power Supply Cord



Fits RFI Computer Filters

Figure 1

18 AWG TWO CONDUCTOR POWER CORDS

| Part No. | Type | Length Cord (Ft.) | Nom OD (Inches) | Rating | Insulation | Color | 1-9 | 10 up |
|----------|--------|-------------------|-----------------|------------------------|--------------------------|-------|------|-------|
| 17236 | Fig. 1 | 6 | .265 | 1250 Watts 10A-125V | SV Rubber Molded Plug | Black | 1.69 | 1.49 |
| 17238 | Fig. 1 | 8 | .265 | 1250 Watts 10A-125V | SV Rubber Molded Plug | Black | 1.89 | 1.65 |
| 17237 | Fig. 1 | 6 | .253 | 1250 Watts 10A-125V | SVT Vinyl Molded Plug | Grey | 1.39 | 1.19 |
| 17239 | Fig. 1 | 8 | .253 | 1250 Watts 10A-125V | SVT Vinyl Molded Plug | Grey | 1.59 | 1.39 |
| 17250 | Fig. 2 | 7 1/2 | .253 | 1250 Watts 10A-125V | SVT Vinyl Molded Plug | Black | 1.95 | 1.79 |



Figure 2

| Part No. | Length | Color | Type | Price Each |
|----------|---------|-------|----------|------------|
| 468-828 | 6 feet | Black | Figure 1 | \$.49 |
| 435-802 | 13 feet | Black | Figure 2 | \$.79 |

CONNECTORS

PC Card Edge Connectors

PC AND SOLDER EYELET

DOUBLE
READ-OUT



15/30SE

Fits all PC
boards .054" to
.070" (thickness
of board)

| Part No. | Contacts | Spacing | Description | 1-9 | 10+ |
|----------|----------|---------|---------------------------|--------|--------|
| 12/24SE | 12/24 | .156 | Solder Eyelet (Commodore) | \$3.95 | \$3.49 |
| 15/30SE | 15/30 | .156 | Solder Eyelet (Keyboards) | \$1.49 | \$1.29 |
| 18/36SE | 18/36 | .156 | Solder Eyelet | \$1.69 | \$1.49 |
| 22/44PC | 22/44 | .156 | Printed Circuit | \$1.29 | \$.99 |
| 22/44SE | 22/44 | .156 | Solder Eyelet | \$1.95 | \$1.69 |
| 31/62SE | 31/62 | .100 | Solder Eyelet (IBM PC) | \$6.95 | \$6.49 |
| R636-2 | 36/72 | .100 | Solder Eyelet | \$8.95 | \$7.95 |
| 50/100SE | 50/100 | .125 | Solder Eyelet (S100) | \$7.95 | \$6.95 |

DOUBLE
READ-OUT



67031-5

Fits all PC
boards .054" to
.070" (thickness
of board)

WIRE WRAP

| Part No. | Contacts | Spacing | Description | 1-9 | 10+ |
|----------|----------|---------|--|--------|--------|
| 122/44 | 22/44 | .100 | W/W type - 2 level | \$3.49 | \$2.95 |
| 22/44WW | 22/44 | .156 | W/W type - 3 level | \$6.49 | \$5.69 |
| R681-1 | 50/100 | .125 | W/W type - 3 level (S100) | \$7.95 | \$6.95 |
| R681-2 | 50/100 | .125 | W/W type - 1 level (S100) | \$9.95 | \$9.29 |
| R681-3 | 50/100 | .125 | W/W type - 1 level (S100) (without mounting ears) | \$6.95 | \$5.95 |
| 67031-5 | 22/44* | .156 | W/W type - 3 level | \$4.95 | \$3.95 |

*PINS ARE .0625" WIDE X .03" THICK

CABLE RF COAXIAL CONNECTORS

| | PART NO. | DESCRIPTION | FITS CABLE | PRICE 1-9 | 10+ |
|--|---------------------|--------------------------------|--|----------------------|------|
| | PL259 | UHF Plug (83-1SP) | RG8,11 | .98 | .85 |
| | SO239 | UHF Panel Receptacle (83-1R) | ---- | .89 | .79 |
| | PL258 | UHF Straight Adapter (83-1J) | ---- | 1.69 | 1.45 |
| | UG175/U | UHF Reducing Adapter (83-185) | RG55,58 | .49 | .39 |
| | UG88/U | BNC Plug (31-002) | RG55,58 | 1.69 | 1.49 |
| | UG89/U | BNC Jack (31-005) | RG55,58 | 3.59 | 3.19 |
| | UG306/U | BNC Angle Adapter (31-009) | ---- | 5.95 | 5.39 |
| | UG260/U | BNC Plug (31-012) | RG59,71 | 1.98 | 1.69 |
| | UG1094/U | BNC Bulkhead Receptacle | ---- | 1.59 | 1.39 |
| | RG58C/U (50 ohm) | Coaxial Cable | Fits Connector UG175/U UG88/U,UG89/U | .39/ft. \$26.95/C | |
| | RG59B/U (75 ohm) | Coaxial (Used for Cable TV) | Fits Connector UG260/U | .41/ft. \$28.95/C | |

D-Subminiature Connectors

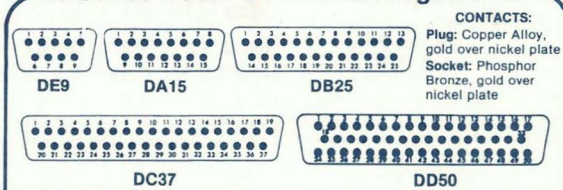


Meets RS232

— Solder Type Contacts —

| Part No. | Description | 1-49 | 50+ |
|-----------|---|--------|--------|
| DE9P | 9 Contact Plug (RS449) | \$1.39 | \$1.19 |
| DE9S | 9 Contact Socket (RS449) | \$1.69 | \$1.45 |
| DA15P | 15 Contact Plug (RS422A/423A) | \$1.79 | \$1.59 |
| DA15S | 15 Contact Socket (RS422A/423A) | \$2.39 | \$1.95 |
| DB25P | 25 Contact Plug (RS232) | \$2.39 | \$1.95 |
| DB25S | 25 Contact Socket (RS232) | \$2.95 | \$2.59 |
| DB25P-831 | 25 Contact Right Angle PC Plug (RS232) | \$4.79 | \$4.29 |
| DB25S-831 | 25 Contact Right Angle PC Socket (RS232) | \$5.79 | \$5.29 |
| DC37P | 37 Contact Plug (RS449) | \$3.39 | \$2.95 |
| DC37S | 37 Contact Socket (RS449) | \$4.59 | \$3.95 |
| DD50P | 50 Contact Plug (RS422A/423A) | \$4.59 | \$3.95 |
| DD50S | 50 Contact Socket (RS422A/423A) | \$5.29 | \$4.69 |
| D20418-2 | 2 Screw Lock Assemblies for mounting any D-Subminiature Connector Hood to a panel | \$.89 | \$.75 |

D-Series Basic Contact Arrangements



D-Subminiature Connectors accommodate up to 20AWG wire.

D-Subminiature Hoods

| Part No. | Fits Connectors | Max. Cable Size (In.) | PRICE 1-49 | 50+ |
|----------|--------------------|--------------------------|---------------|--------|
| DE-9H | DE-9 | .25 | \$1.09 | \$.89 |
| DA-15H | DA-15 | .34 | \$1.15 | \$.95 |
| DB-25H | DB-25 | .375 | \$1.19 | \$.99 |
| DC-37H | DC-37 | .375 | \$1.29 | \$1.19 |
| DD-50H | DD-50 | .45 | \$1.39 | \$1.29 |

Micro Ribbon Connectors

CABLE TO PANEL OR CABLE TO CABLE



CENTRONICS — IEEE488

SOLDER TYPE CONTACTS

| Part No. | Description | PRICE 1-49 | 50+ |
|----------|----------------------------|---------------|--------|
| 57-30140 | 14-Pin Male | \$5.29 | \$4.59 |
| 57-60140 | 14-Pin Female | \$5.79 | \$4.95 |
| 57-30240 | 24-Pin Male (IEEE488) | \$5.95 | \$5.29 |
| 57-60240 | 24-Pin Female (IEEE488) | \$7.49 | \$6.59 |
| 57-30360 | 36-Pin Male (Centronics) | \$6.95 | \$6.29 |
| 57-60360 | 36-Pin Female (Centronics) | \$7.95 | \$6.95 |
| 57-30500 | 50-Pin Male | \$7.95 | \$6.95 |
| 57-60500 | 50-Pin Female | \$9.59 | \$8.49 |

Insulation Displacement Cable Assemblies

SOCKET CABLES

SE=Single End
DE=Double End

ALL SOCKET CABLES ARE LISTED IN INCHES

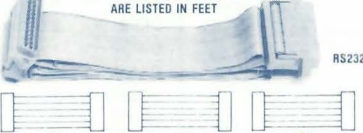
| A Socket with 36" Cable | | | | | | |
|----------------------------|-----------------|-------|-----------------------|------|------|--|
| Part No. | No. of Contacts | Style | Length (Inches) Desc. | 1-9 | 10+ | |
| S20-36 | 20 | A | 36" SE | 3.19 | 2.89 | |
| S26-36 | 26 | A | 36" SE | 3.79 | 3.45 | |
| S34-36 | 34 | A | 36" SE | 4.69 | 4.09 | |
| S40-36 | 40 | A | 36" SE | 5.19 | 4.69 | |
| S50-36 | 50 | A | 36" SE | 6.19 | 5.49 | |

| B Socket to Socket | | | | | | |
|-----------------------|-----------------|-------|-----------------------|------|------|--|
| Part No. | No. of Contacts | Style | Length (Inches) Desc. | 1-9 | 10+ | |
| S20-6-S | 20 | B | 6" DE | 3.95 | 3.49 | |
| S20-18-S | 20 | B | 18" DE | 4.35 | 3.79 | |
| S26-6-S | 26 | B | 6" DE | 4.65 | 4.19 | |
| S26-18-S | 26 | B | 18" DE | 4.95 | 4.49 | |
| S34-6-S | 34 | B | 6" DE | 5.49 | 4.79 | |
| S34-18-S | 34 | B | 18" DE | 5.95 | 5.39 | |
| S40-6-S | 40 | B | 6" DE | 5.95 | 5.39 | |
| S40-18-S | 40 | B | 18" DE | 6.69 | 5.95 | |
| S50-6-S | 50 | B | 6" DE | 6.89 | 6.19 | |
| S50-18-S | 50 | B | 18" DE | 7.79 | 6.95 | |

"CENTRONICS" DB25P CABLE ASSEMBLIES

| Part No. | No. of Contacts | Description | Price |
|------------|-----------------|----------------------------------|-------|
| CEN36M-5 | 36 | 5' Single End Male | 12.95 |
| CEN36M-5-M | 36 | 5' Male to Male | 19.95 |
| CEN36M-5-F | 36 | 5' Male to Female | 22.95 |
| CDB25P-5- | 25 | 5' CDB25 Male to Centronics Male | 17.95 |
| CEN36M | | | |

ALL D-SUBMINIATURE CABLES ARE LISTED IN FEET



| C Male to Male | | | | | | |
|----------------|-----------------|-------|---------------------|-------|-------|--|
| Part No. | No. of Contacts | Style | Length (Feet) Desc. | 1-9 | 10+ | |
| CDB25P-4-P | 25 | C | 4' DE | 13.95 | 12.29 | |
| CDB25P-10-P | 25 | C | 10' DE | 16.49 | 14.39 | |
| CDB25S-4-S | 25 | D | 4' DE | 12.49 | 10.95 | |
| CDB25S-10-S | 25 | D | 10' DE | 14.95 | 13.19 | |
| CDB25P-4-S | 25 | E | 4' DE | 13.29 | 11.69 | |
| CDB25P-10-S | 25 | E | 10' DE | 15.49 | 13.79 | |

STANDARD DIP JUMPERS



All DIP Jumpers come with Low Profile DIP Plugs with Heavy Duty Pins for repeated disconnect applications.

SE = Single End DE = Double End

| Part No. | No. Pins | Desc. | Cable Length | 1-9 | 10+ |
|----------|----------|------------|--------------|------|------|
| DJ14-1 | 14 | Single End | 12" | 1.79 | 1.65 |
| DJ14-2 | 14 | Single End | 24" | 2.05 | 1.89 |
| DJ14-3 | 14 | Single End | 36" | 2.35 | 2.19 |
| DJ14-14 | 14 | Double End | 12" | 2.95 | 2.75 |
| DJ14-24 | 14 | Double End | 24" | 3.19 | 2.95 |
| DJ14-34 | 14 | Double End | 36" | 3.49 | 3.29 |
| DJ16-1 | 16 | Single End | 12" | 1.89 | 1.75 |
| DJ16-2 | 16 | Single End | 24" | 2.19 | 2.05 |
| DJ16-3 | 16 | Single End | 36" | 2.59 | 2.39 |
| DJ16-16 | 16 | Double End | 12" | 2.95 | 2.79 |
| DJ16-26 | 16 | Double End | 24" | 3.29 | 3.09 |
| DJ16-36 | 16 | Double End | 36" | 3.59 | 3.39 |
| DJ18-1 | 24 | Single End | 12" | 2.69 | 2.49 |
| DJ18-2 | 24 | Single End | 24" | 3.19 | 2.85 |
| DJ18-3 | 24 | Single End | 36" | 3.59 | 3.19 |
| DJ24-124 | 24 | Double End | 12" | 4.49 | 3.95 |
| DJ24-224 | 24 | Double End | 24" | 4.95 | 4.69 |
| DJ24-324 | 24 | Double End | 36" | 5.39 | 4.95 |
| DJ40-1 | 40 | Single End | 12" | 3.89 | 3.45 |
| DJ40-2 | 40 | Single End | 24" | 4.59 | 3.99 |
| DJ40-3 | 40 | Single End | 36" | 5.29 | 4.55 |
| DJ40-140 | 40 | Double End | 12" | 6.39 | 5.59 |
| DJ40-240 | 40 | Double End | 24" | 6.95 | 6.19 |
| DJ40-340 | 40 | Double End | 36" | 7.69 | 6.69 |

COMPUTER CABLE ASSEMBLIES

← **SHIELDED or UNSHIELDED** →

Place Your Peripherals where they'll serve you best!

JAMECO EIA Cables Are As Easy To Use As An Extension Cord!

Shielded cables keep your signals clean and true. The farther a signal travels, the more likely it can be altered by interference from other equipment or fluorescent lights. This electrical interference can cause static, dropouts or unkeyed characters. Recent FCC regulations now call for limited emissions from commercial and personal systems purchased after 10/1/83.

| CONNECTOR | Type | Number of Lines | Cable Length | Male/Female | JAMECO Part No. Male/Male | Female/Female | 1-9 | 10+ |
|-----------|------------|--|--------------|-------------|---------------------------|---------------|---------|---------|
| | Unshielded | 4 LINE | 10 ft. | U4M-10-F | U4M-10-M | U4F-10-F | \$14.95 | \$13.95 |
| | Shielded | Lines 1,2,3&7 w/lines 8&20 jumpered | 10 ft. | S4M-10-F | S4M-10-M | S4F-10-F | \$29.95 | \$26.95 |
| | Unshielded | 9 LINE | 10 ft. | U9M-10-F | U9M-10-M | U9F-10-F | \$16.95 | \$15.49 |
| | Shielded | Lines 1-8 & 20 | 10 ft. | S9M-10-F | S9M-10-M | S9F-10-F | \$34.95 | \$31.95 |
| | Unshielded | 15 LINE | 10 ft. | U15M-10-F | U15M-10-M | U15F-10-F | \$21.49 | \$19.49 |
| | Shielded | Lines 1-8,12,14,17,20,22,24, with lines 1 and 7 jumpered | 10 ft. | S15M-10-F | S15M-10-M | S15F-10-F | \$39.95 | \$35.95 |
| | Unshielded | 25 LINE | 10 ft. | U25M-10-F | U25M-10-M | U25F-10-F | \$29.95 | \$26.95 |
| | Shielded | All Lines Extended | 10 ft. | S25M-10-F | S25M-10-M | S25F-10-F | \$49.95 | \$44.95 |

DESIGN YOUR OWN! — INDIVIDUAL CABLES AND CONNECTORS — DESIGN YOUR OWN!

| PART NO. | DESCRIPTION | PRICE | PART NO. | DESCRIPTION | PRICE |
|----------|-------------------------------|-------------|----------|---|-------------|
| 205208M | Amp Male Connector Housing. | \$1.95 each | US-C15 | 15-Line Cable — Unshielded. | \$.59/foot |
| 205207F | Amp Female Connector Housing. | \$1.95 each | US-C25 | 25-Line Cable — Unshielded. | \$.89/foot |
| DB25H | Male/Female Back Shelling. | \$1.25 each | S-C4 | 4-Line Cable — Shielded. | \$.29/foot |
| 66506 | Amp Male Crimp Pins. | \$.15 each | S-C9 | 9-Line Cable — Shielded. | \$.59/foot |
| 66504 | Amp Female Crimp Socket Pins. | \$.18 each | S-C15 | 15-Line Cable — Shielded. | \$.79/foot |
| US-C4 | 4-Line Cable — Unshielded. | \$.19 /foot | S-C25 | 25-Line Cable — Shielded. | \$.99/foot |
| US-C9 | 9-Line Cable — Unshielded. | \$.45 /foot | RTT-2 | Two 24AWG Ground Wire Tongue Terminals. | \$.89/pkg |
| | | | IT-S25 | Insertion/Extraction Tool. | \$.195 each |

CUSTOM ORDER CABLE ASSEMBLIES

Choose the Connectors & Cables you require from the section above, and use those part numbers to order your own Custom Cable.

LABOR COST:

| Unshielded | 4 LINE | \$ 8.00 ea. | 9 LINE | \$ 8.00 ea. | 15 LINE | \$12.00 ea. | 25 LINE | \$15.00 ea. |
|------------|--------|-------------|--------|-------------|---------|-------------|---------|-------------|
| Shielded | | \$12.00 ea. | | \$12.00 ea. | | \$15.00 ea. | | \$20.00 ea. |

EXAMPLE: If you desire a 25-foot shielded 9-conductor cable with a "male" 205208M (DB25M) on one end, and a "female" 205207F (DB25F) on the other end, you would order: 205208M-25/S-C9/205207F CUSTOM

| | | |
|--------------------|---|-----------|
| CONNECTOR HOUSING: | \$ 1.95 (205208M) + \$1.95 (205207F) + \$2.50 (2-DB25H @ \$.125). | = \$ 6.40 |
| CRIMP PINS: | \$ 1.35 (9-66506 pins @ \$.15) + \$1.62 (9-66504 pins @ \$.18). | = \$ 2.97 |
| CABLE: | \$14.75 (25 feet S-C9 Shielded Cable @ \$.59/foot). | = \$14.75 |
| LABOR: | \$12.00 (Charge PER CABLE for Assembly). | = \$12.00 |
| SET-UP: | \$ 5.00 (Set-up charge PER CABLE "TYPE"). | = \$ 5.00 |

TOTAL COST: This 205208M-25/S-C9/205207F CUSTOM would cost. = \$41.12

PLEASE SPECIFY IF LINES NEED SWAPPING. THERE IS A \$5.00 SET-UP CHARGE (PER STYLE) ON ALL CUSTOM CABLES. ALL CUSTOM CABLE ASSEMBLIES MUST BE **PREPAID** BEFORE ASSEMBLY. THERE ARE NO RETURNS ON CUSTOM CABLE ASSEMBLIES.

Insulation Displacement Connectors and Connector Accessories

Mates with
Socket Connector
.10" x .10"

MALE CONNECTOR



| Part No. | No. of Contacts/ Conductors | 1-9 | 10-99 | 100+ |
|----------|-----------------------------------|------|-------|------|
| M20 | 20 | 4.09 | 3.65 | 3.19 |
| M26 | 26 | 4.49 | 3.95 | 3.49 |
| M34 | 34 | 4.95 | 4.49 | 3.95 |
| M40 | 40 | 5.49 | 4.89 | 4.29 |
| M50 | 50 | 6.49 | 5.75 | 4.95 |

SOLDER TRANSITION CONNECTORS

FOR PERMANENT
TERMINATION TO PRINTED CIRCUIT BOARDS



| Part No. | No. of Contacts | 1-9 | 10-99 | 100+ |
|----------|--------------------|------|-------|------|
| ST20 | 20 | 1.15 | .99 | .89 |
| ST26 | 26 | 1.25 | 1.15 | .99 |
| ST34 | 34 | 1.49 | 1.35 | 1.15 |
| ST40 | 40 | 1.69 | 1.55 | 1.35 |
| ST50 | 50 | 1.89 | 1.69 | 1.49 |



36-Pin
CENTRONICS

RIBBON CONNECTORS*

24-Pin
IEEE488

| Part No. | No. of Contacts/ Style | 1-9 | 10-99 | 100+ |
|----------|------------------------------|------|-------|------|
| CEN14M | 14 Male | 6.39 | 5.49 | 4.49 |
| CEN14F | 14 Female | 6.19 | 5.29 | 4.29 |
| CEN24M | 24 Male | 7.95 | 6.95 | 5.95 |
| CEN24F | 24 Female | 7.69 | 6.79 | 5.75 |
| CEN36M | 36 Male | 8.69 | 7.59 | 6.49 |
| CEN36F | 36 Female | 9.75 | 8.95 | 7.95 |

*Please specify screw-type or spring-type Ribbon Connector



CARD-EDGE
CONNECTOR
Mates with double-sided
1/16" PC board with
contact fingers on
.100" centers

CARD-EDGE CONNECTORS

| Part No. | No. of Contacts/ Conductors | 1-9 | 10-99 | 100+ |
|----------|-----------------------------------|------|-------|------|
| C20 | 20 | 2.39 | 2.09 | 1.89 |
| C26 | 26 | 2.69 | 2.39 | 2.09 |
| C34 | 34 | 3.29 | 2.95 | 2.59 |
| C40 | 40 | 3.69 | 3.29 | 2.89 |
| C50 | 50 | 4.39 | 3.95 | 3.39 |

28AWG FLAT GREY CABLE

| Part No. | No. of Contacts/ Conductors | Connector & Wire Type | 1-19 Feet | 20-99 Feet |
|----------|-----------------------------------|--------------------------|--------------|---------------|
| 171-9 | 9 | 28AWG Flat Stranded | .19 | .16 |
| 171-14 | 14 | 28AWG Flat Stranded | .25 | .24 |
| 171-15 | 15 | 28AWG Flat Stranded | .27 | .25 |
| 171-16 | 16 | 28AWG Flat Stranded | .29 | .26 |
| 171-20 | 20 | 28AWG Flat Stranded | .35 | .32 |
| 171-24 | 24 | 28AWG Flat Stranded | .45 | .39 |
| 171-25 | 25 | 28AWG Flat Stranded | .47 | .40 |
| 171-26 | 26 | 28AWG Flat Stranded | .49 | .41 |
| 171-34 | 34 | 28AWG Flat Stranded | .62 | .55 |
| 171-36 | 36 | 28AWG Flat Stranded | .65 | .58 |
| 171-37 | 37 | 28AWG Flat Stranded | .69 | .59 |
| 171-40 | 40 | 28AWG Flat Stranded | .75 | .70 |
| 171-50 | 50 | 28AWG Flat Stranded | .89 | .79 |

CUSTOM ASSEMBLIES

Use the part numbers from the connectors and cable to order your own custom assembled cables.

EXAMPLE: If you desire a 25-foot cable with a male "Centronics" connector on one end, and a female "Centronics" connector on the other end, you would order:

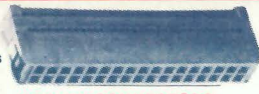
CEN36M-25-CEN36F Custom
\$8.69 (CEN36M) + \$9.75 (CEN36F) = \$18.44
\$.58 x 25 (25 feet 36 conductor cable) = \$14.50
\$5.00 Set-up charge on all custom cables = \$ 5.00

This (CEN36M-25-CEN36F Custom) Cable would cost \$37.94

Please specify "CUSTOM" after the part no. to ensure your order will be filled correctly. (Important: Please specify cable in FEET, not inches)

ALL CUSTOM CABLE ASSEMBLIES MUST BE PREPAID BEFORE ASSEMBLY. THERE ARE NO RETURNS ON CUSTOM CABLE ASSEMBLIES. \$5.00 SET-UP CHARGE (per style) ON ALL CUSTOM CABLES.

SOCKET
CONNECTOR
Mates with 2 rows of
.025" sq. or dia. posts
on patterns of .100"
centers and shielded
receptacles



SOCKET CONNECTORS

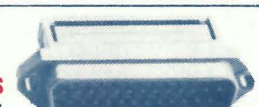
| Part No. | No. of Contacts/ Conductors | 1-9 | 10-99 | 100+ |
|----------|-----------------------------------|------|-------|------|
| S10 | 10 | .89 | .75 | .69 |
| S20 | 20 | 1.39 | 1.25 | 1.09 |
| S26 | 26 | 1.69 | 1.49 | 1.35 |
| S34 | 34 | 2.09 | 1.79 | 1.59 |
| S40 | 40 | 2.29 | 2.09 | 1.79 |
| S50 | 50 | 2.69 | 2.39 | 2.09 |
| S60 | 60 | 3.39 | 2.95 | 2.59 |

DIP PLUG CONNECTORS



| Part No. | No. of Contacts/ Conductors | 1-9 | 10-99 | 100+ |
|----------|-----------------------------------|------|-------|------|
| 609-14 | 14 | 1.29 | 1.09 | .89 |
| 609-16 | 16 | 1.35 | 1.15 | .95 |
| 609-24 | 24 | 1.89 | 1.69 | 1.45 |
| 609-40 | 40 | 2.95 | 2.59 | 2.19 |

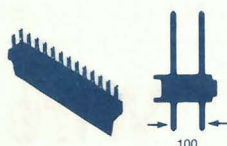
D-SUB CONNECTORS



| Part No. | No. of Contacts/ Style | 1-9 | 10-99 | 100+ |
|----------|------------------------------|------|-------|------|
| CDE9P | 9 Male | 2.95 | 2.65 | 2.29 |
| CDE9S | 9 Female | 3.39 | 3.09 | 2.69 |
| CDA15P | 15 Male | 3.95 | 3.55 | 3.09 |
| CDA15S | 15 Female | 4.75 | 4.19 | 3.69 |
| CDB25P | 25 Male | 5.49 | 4.79 | 4.25 |
| CDB25S | 25 Female | 5.95 | 5.49 | 4.85 |
| CDC37P | 37 Male | 7.79 | 6.95 | 6.09 |
| CDC37S | 37 Female | 8.95 | 7.95 | 6.95 |

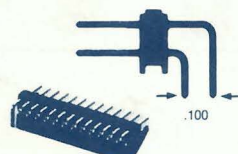
DOUBLE-ROW MALE HEADERS

- Solder to PC boards for instant plug-in access via socket-connector jumpers.
- .025" square posts on a .10" x .10" matrix



STRAIGHT

| Part No. | No. of Posts | 1-9 | 10+ |
|----------|-----------------|------|------|
| 923862R | 20 | .79 | .65 |
| 923863R | 26 | .95 | .79 |
| 923864R | 34 | 1.29 | .95 |
| 923865R | 40 | 1.45 | 1.25 |
| 923866R | 50 | 1.79 | 1.55 |



RIGHT-ANGLE

| Part No. | No. of Posts | 1-9 | 10+ |
|----------|-----------------|------|------|
| 923872R | 20 | .95 | .79 |
| 923873R | 26 | 1.29 | .95 |
| 923874R | 34 | 1.59 | 1.39 |
| 923875R | 40 | 1.95 | 1.69 |
| 923876R | 50 | 2.29 | 1.95 |



DB25 - RS232

TO CONNECT
2 MALE DB25 CABLES

| Part No. | Price |
|-------------|---------|
| JRSMM | \$15.95 |

TO CONNECT
2 FEMALE DB25 CABLES

| Part No. | Price |
|-------------|---------|
| JRSFF | \$15.95 |



"CENTRONICS"

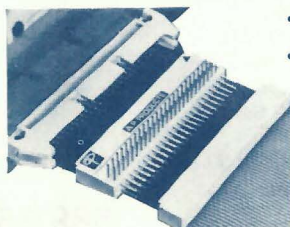
TO CONNECT
2 Male "Centronics" Cables

| Part No. | Price |
|--------------|---------|
| JCENMM | \$19.95 |

TO CONNECT
2 Female "Centronics" Cables

| Part No. | Price |
|--------------|---------|
| JCENFF | \$19.95 |

INTRA-CONNECTOR



- Permits quick testing of previously unprovable circuits
- Provides both straight-in and right angle functions
- Mates with standard .10" x .10" dual row connectors

| Part No. | No. of Contacts | Model No. | Price Each |
|-----------|--------------------|--------------|---------------|
| 922576-26 | 26 | IC-26 | \$ 8.79 |
| 922576-50 | 50 | IC-50 | \$12.95 |

INTRA-SWITCH



- Permits instant line-by-line switching for diagnostic or QA testing
- Switches actuated with pencil or probe tip
- Mates with standard .10" x .10" dual row connectors

| Part No. | No. of Contacts | Model No. | Price Each |
|-----------|--------------------|--------------|---------------|
| 922578-26 | 26 | IS-26 | \$16.95 |
| 922578-50 | 50 | IS-50 | \$25.95 |

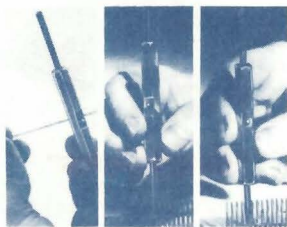


JUST WRAP[™] Wire Wrapping Tool

30 AWG wire (50 feet), fits .025" square posts. Daisy chain or point-to-point. No stripping or slitting required — just wrap. Built-in cut-off.

| PART NO. | COLOR | PRICE |
|-----------------------------------|----------------|---------|
| JW-1-B | (Blue) | \$21.95 |
| JW-1-W | (White) | \$21.95 |
| JW-1-Y | (Yellow) | \$21.95 |
| JW-1-R | (Red) | \$21.95 |
| REPLACEMENT WIRE (50 Feet) | | |
| R-JW-B | (Blue) | \$4.49 |
| R-JW-W | (White) | \$4.49 |
| R-JW-Y | (Yellow) | \$4.49 |
| R-JW-R | (Red) | \$4.49 |

Strip-Wrap-Unwrap Tool



STRIP WRAP UNWRAP

Use with 30 AWG wire on .025" square posts. No solder necessary.

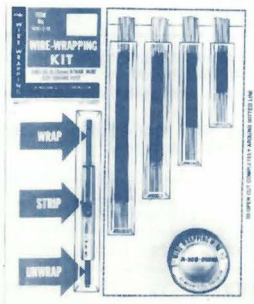
WSU-30\$9.95

Modified Tool

WSU-30M wraps 1 to 2 turns of insulated portion of wire for more secure connections.

WSU-30M (Mod.) . . . \$10.95

Wire Wrapping Kit — WK-2



Contains WSU-30 wrap tool, 50 feet of Kynar 30 AWG white wire, 50 pieces each pre-stripped wire in 1", 2", 3" and 4" lengths, stripped 1" both ends.

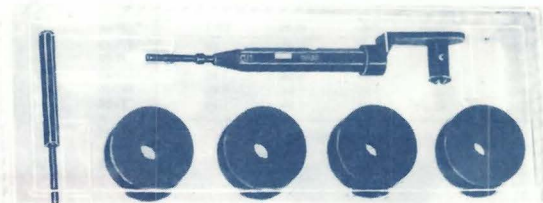
WK-2W . . \$17.95

JUST WRAP[™] Unwrap Tool



JUW-1 Unwraps 30 AWG Wire \$5.49

JUST WRAP[™] Kit



Includes JUST WRAP tool, 50 feet each of blue, white, red and yellow 30AWG Kynar wire and unwrap tool.

JWK-6 \$37.95



"Clip and Strip" Tool

Strips 1" of insulation from 30AWG wire. Insert wire, squeeze tool and pull wire through slot. Handy pocket eye. 1 1/4" x 1" x 5/8".

CAS-130\$2.95



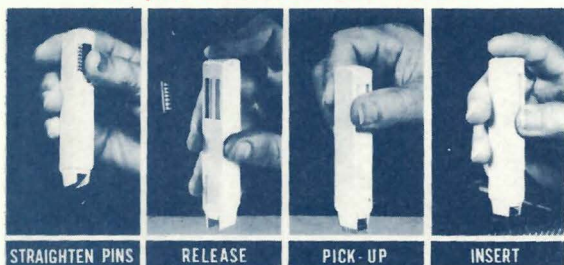
Wire Wrap Kit

- Battery Tool BW-630 (C-size batteries not included)
- Hobby Wrap Tool WSU-30M
- PC Edge Connector CON-1
- DIP/IC Extractor Tool EX-1
- DIP/IC Insertion Tool INS-1416
- PC Card Guides & Brackets TRS-2
- Mini-Shear with Safety Clip MS-20
- 14, 16, 24, and 40 Pin DIP Sockets
- Terminals WWT-1
- Tri-color Wire Dispenser WD-30-TRI
- Hobby Board H-PCB-1

WK-5 \$89.95



DIP/IC INSERTION TOOL



Inserts both 14 and 16 pin packages. Narrow profile permits work on closely-spaced items. Pin straightener built into handle.

| Part No. | Function | Price |
|----------|---|---------|
| INS-1416 | 14-16 pin (pictured above) | \$ 5.49 |
| MOS-1416 | 14-16 pin CMOS safe (pictured at right) | \$10.95 |
| MOS-2428 | 24-28 pin CMOS safe (pictured at right) | \$10.95 |
| MOS-40 | 36-40 pin CMOS safe (pictured at right) | \$12.69 |



Battery Wire Wrap Tool

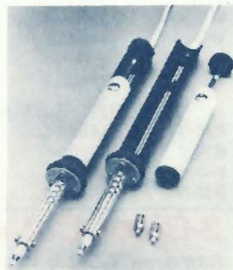
Wraps 30AWG wire on standard DIP sockets (.025"). Complete with built-in bit and sleeve for "modified" style wrap. Positive indexing and anti-overwrapping. Weighs only 11 ozs. Uses 2 each "C" batteries (not included).

| Part No. | Function | Price |
|----------|--------------------------------------|---------|
| BW630 | 30AWG (with Bit and Sleeve) | \$43.95 |
| BT-30 | 30AWG Replacement Bit & Sleeve | \$ 5.95 |

Electric Desoldering Iron

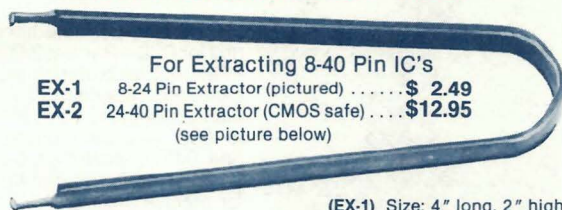
• Self contained suction power and heating element • Economical • Lightweight 4 oz. (113 grams) • Compact size 10 1/4 inches (26cm) • Replacement nozzles available

Revolutionary new electric desoldering iron combines the ease and portability of a hand-held, manual, desolder pump, with performance of an industrial desolder station. This unique AC powered compact tool features portable, one-hand desoldering eliminating the need for separate soldering iron and desolder pump. No shop air required. Essential for all tool kits, field service technicians, and repairmen, as well as production applications. Vacuum chamber is easily removed for cleaning or replacement. Tool is supplied with SAT-6-059 tip; diameter .059 inch (1.5mm).



| | |
|---|---------|
| Part No. SA-6 | \$23.95 |
| Part No. SAT-6-059 .059" Replacement Nozzle. | \$2.95 |
| Part No. SAT-6-070 .070" Replacement Nozzle. | \$2.95 |

DIP/IC Extractor Tool

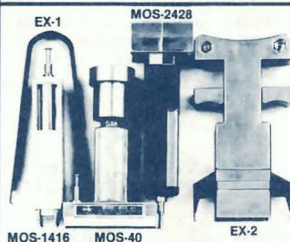


For Extracting 8-40 Pin IC's

| | | |
|------|-------------------------------------|---------|
| EX-1 | 8-24 Pin Extractor (pictured) | \$ 2.49 |
| EX-2 | 24-40 Pin Extractor (CMOS safe) ... | \$12.95 |

(see picture below)

(EX-1) Size: 4" long, 2" high

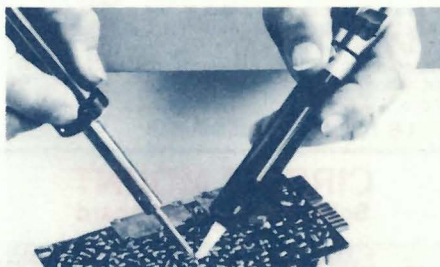


DIP/IC Inserter-Extractor Kit

Includes MOS-1416, MOS-40, MOS-2428, EX-1 and EX-2.

WK-7 \$43.95

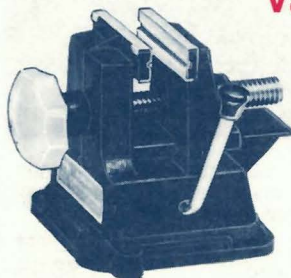
DESOLDER PUMP



- Low static all metal construction
- One hand operation — self-cleaning
- Suction precisely regulated to protect circuitry
- Easily disassembled for cleaning
- Teflon tip — compact size

| | | |
|-------|---------------------------------|---------|
| DP-1X | Desolder Pump | \$12.95 |
| DPT-1 | Replacement Tips (2 tips) | \$ 2.95 |

Vacuum Vise

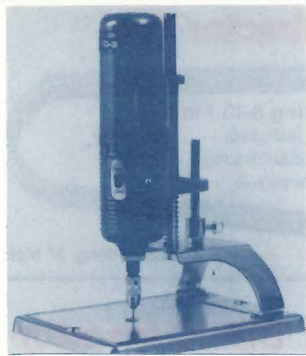


Vacuum-based light-duty vise for small components and assemblies. ABS construction. 1 1/2" jaws, 1 1/4" travel. Can be permanently installed. Weight: 6 oz. Size: 3"L x 3 1/2"W x 3"H

VV-1 \$4.95



PRODUCTS



MINI-DRILL

Lightweight, portable hand drill for PCBs. Runs at 2,500 RPM on 4 AA batteries (not included). Weighs 10.5 oz. Accepts drill bits from .019" to .058" diameter. Includes one .039" diameter bit. Optional stand holds drill firm for precise drilling.

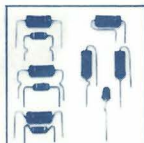
| Part No. | Description | Price |
|----------|------------------------------|---------|
| PD-3 | Mini-Drill. | \$29.95 |
| RDB-4 | 4 Replacement Bits | 6.95 |
| STD-50 | Stand for PD-3. | 16.95 |

Lead Bender and Crimper

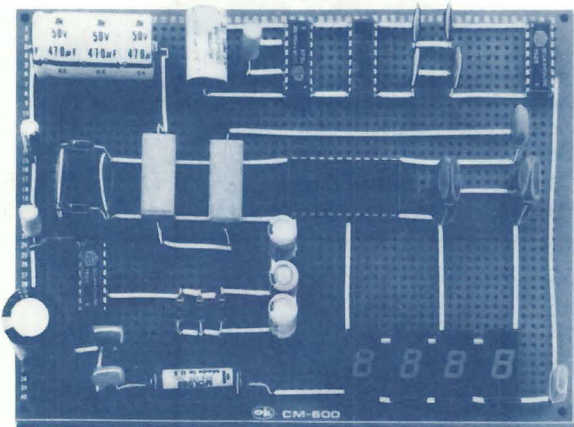


The new LB-100 handles all common axial components including resistors, diodes and capacitors, and can be used on many radial and "TO" packages as well. This device is easily adjusted for both lead diameter and crimp size. It provides all the versatility of expensive automatic machines at a fraction of the price. May be hand-held or mounted in a vise. Ideal for prototype, laboratory, and light production applications.

Part No. LB-100 \$15.95 each



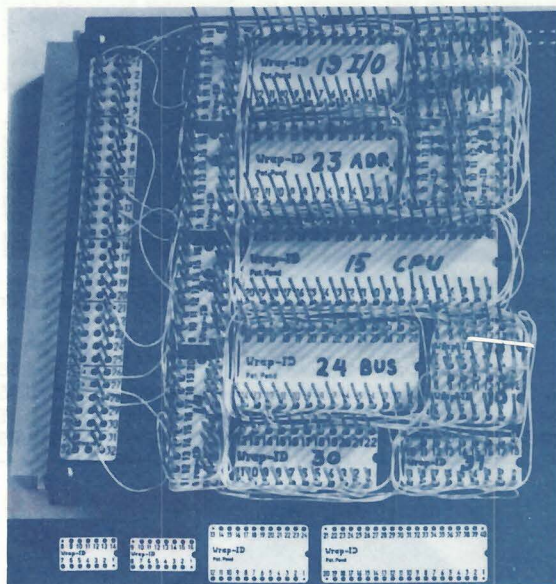
CIRCUIT MOUNT Solderless Circuit Board



A neoprene board 4½" x 6" with 2280 holes on .100" centers. Inter-connections are made using 20 or 22 AWG wire jumpers. Features numbered rows and columns.

| Part No. | Description | Price |
|----------|-------------------------------|--------|
| CM-600 | Circuit Mount Board | \$6.95 |
| RW-50 | Jumper Wires | \$4.49 |
| | (50 wires — 20 AWG — ½"–4") | |

SOCKET-WRAP I.D.



Quick identification of pin numbers. Slips onto socket before wrapping. Write easily on them for location, part number, function, etc.

| Part No. | Package | Price | Part No. | Package | Price |
|----------|-----------|--------|----------|-----------|--------|
| 14-ID | (10/pkg.) | \$1.99 | 24-ID | (5/pkg.) | \$1.99 |
| 16-ID | (10/pkg.) | \$1.99 | 28-ID | (5/pkg.) | \$1.99 |
| 18-ID | (5/pkg.) | \$1.99 | 40-ID | (5/pkg.) | \$1.99 |
| 20-ID | (5/pkg.) | \$1.99 | 96-ID | (5/pkg.) | \$1.99 |
| 22-ID | (5/pkg.) | \$1.99 | | | |

CUT and STRIP DISPENSER

- Cuts and strips in one step.
- Strips 1" of insulation.
- Refillable
- Includes 50 feet of 30AWG Kynar wire-wrap wire



| Part No. | Color | Price |
|----------|--------------------|--------|
| WD-30-B | (Blue) | \$6.95 |
| WD-30-Y | (Yellow) | \$6.95 |
| WD-30-W | (White) | \$6.95 |
| WD-30-R | (Red) | \$6.95 |

REPLACEMENT WIRE (50 Ft. Roll 30AWG)

| | | |
|-------|--------------------|--------|
| R30-B | (Blue) | \$4.49 |
| R30-Y | (Yellow) | \$4.49 |
| R30-W | (White) | \$4.49 |
| R30-R | (Red) | \$4.49 |

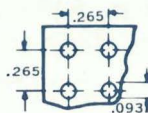
3-Color Cut and Strip Dispenser

Same as WD-30. Includes 50 feet each of red, white and blue 30AWG wire wrap wire all on one dispenser.

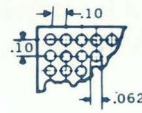
| Part No. | Price |
|---------------------------------------|--------|
| WD-30-TRI | \$9.95 |
| R-30-TRI (Replacement Roll) | \$7.95 |

Vectorlord®

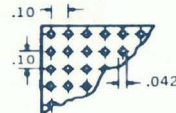
PREPUNCHED INSULATING BOARDS



A Pattern



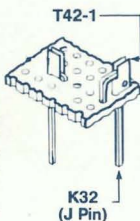
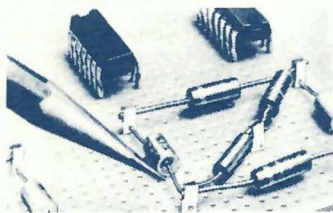
H Pattern



P Pattern

| MATERIAL | HOLE PATTERN | STOCK NO. | HOLE SIZE (IN.) | LONG (IN.) | WIDE (IN.) | THICK (IN.) | PRICE 1-9 | PRICE 10+ |
|--|-----------------|------------|--------------------|------------|------------|-------------|--------------|--------------|
| PHENOLIC | A | 64AA18 | .093 | 17.0 | 4.8 | 3/32 | \$ 4.95 | \$ 4.39 |
| | P | 64P44XXXP | .042 | 4.5 | 6.5 | 1/16 | \$ 2.39 | \$ 2.15 |
| | P | 169P44XXXP | .042 | 4.5 | 17.0 | 1/16 | \$ 5.79 | \$ 4.95 |
| EPOXY GLASS | H | 85H48WE | .062 | 8.5 | 4.8 | 1/16 | \$ 3.79 | \$ 3.35 |
| | P | 64P44WE | .042 | 4.5 | 6.5 | 1/16 | \$ 3.15 | \$ 2.75 |
| | P | 84P44WE | .042 | 4.5 | 8.5 | 1/16 | \$ 3.89 | \$ 3.45 |
| | P | 169P44WE | .042 | 4.5 | 17.0 | 1/16 | \$ 7.69 | \$ 6.69 |
| | P | 169P84WE | .042 | 8.5 | 17.0 | 1/16 | \$13.49 | \$12.75 |
| EPOXY GLASS Copper Clad – One Side Only | P | 169P44WEC1 | .042 | 4.5 | 17.0 | 1/16 | \$ 9.95 | \$ 8.75 |

VECTOR PUSH-IN TERMINALS

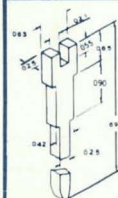


| Part No. | Tab Style | Material | Plating | Minimum 50 pcs. | 100 pcs. | 1000 pcs. |
|-----------|--|-----------------|---------|-------------------|-----------------|------------------|
| T28 | .437" long w/hole-for .062" board | Phosphor Bronze | Tin | \$2.49 lot | \$3.49 C | \$13.95 M |
| T42-1 | .360" long w/hole-for .042" board | Copper Alloy | Tin | \$2.35 lot | \$3.35 C | \$13.49 M |
| K32 J Pin | .650" long accessory to T42-1 or as wire wrap or patch cord post | Copper Alloy | Tin | \$4.45 lot | \$5.95 C | \$26.95 M |

VECTOR WIRING TERMINALS

WIRE WRAPPABLE TERMINALS FOR .042" DIAMETER HOLES

| Series | Part No. | | Material | Post Size | Height Above 1/16" Board | Length Below 1/16" Board | Insertion Tool Required | Price Per 50 pcs. | | Price Per 100 pcs. | | Price Per 1000 pcs. | |
|--------|----------|-------|--------------|-----------|--------------------------------|--------------------------------|-------------------------------|----------------------|------|-----------------------|------|------------------------|-------|
| | Gold | Tin | | | | | | Gold | Tin | Gold | Tin | | |
| T44 | T44-1 | T44 | Copper Alloy | .025" sq. | .065 | .530 | A13 | 3.55 | 1.55 | 5.95 | 2.55 | 39.00 | 17.00 |
| T46 | T46-1 | T46 | Copper Alloy | .028" sq. | .400 | .530 | P133A | 5.85 | 3.15 | 9.75 | 5.25 | 65.00 | 35.00 |
| T49 | T49A | T49 | Copper Alloy | .025" sq. | .200 | .560 | P156 | 5.85 | 3.00 | 9.75 | 5.00 | 65.00 | 30.00 |
| T49-1 | T49A-1 | T49-1 | Copper Alloy | .025" sq. | .200 | .388 | P156 | 7.65 | 4.15 | 12.75 | 6.95 | 85.00 | 46.00 |



T-44 MINIWRAP

Terminal pushes in and locks in .042" diameter hole. Has .021" component slot and .025" square tail for wrapped wire connections. Overall length is .690". The T-44 Series is copper alloy, tin or gold plated.



T-46

These double ended wrap-posts are inserted into .042" diameter circuitboard holes such as "P" pattern Micro-Vectorbord with P133A insertion tool. The pins extend 0.40" above the board and 0.53" below 1/16" thick board.



T-49
LIPWRAP

Pushes into .042" diameter hole. Upper end holds leads .010" to .040" in clip action until soldered. T-49 is copper alloy, tin or gold plated.

VECTOR INSERTION TOOLS

| Part No. | Terminal | Price |
|----------|-----------------|--------|
| P91A | T28..... | \$4.95 |
| P149A | T42-1..... | \$7.95 |
| A13 | T44/T44-1..... | \$8.49 |
| P133A | T46/T46-1..... | \$5.79 |
| P156 | T49 Series..... | \$5.95 |

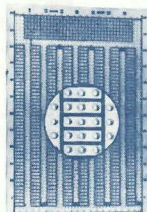


GENERAL PURPOSE, APPLE AND IBM CIRCUIT BOARDS

PLUGBOARDS FOR INTERFACE, MEMORY EXPANSION, EXPERIMENTATION

CIRCBORDS®

• Most popular plugboard patterns without the expense of edge connectors • Wire by wrapping, soldering or solder-thru pencil wiring • Tinned circuit pattern one side, other side bare (8001, 8002 & 8003 only) • Size: 4.5" x 6.5" x .062" epoxy glass .042" dia. holes on .1" grid • Universal I/O area for mounting any type board connector



**CIRCBORD
No. 8001**

- Convenient power & ground buses
- 3-hole pads
2 buses
- Mounts 20 each
16-pin DIPs
- Quick solder mounting
- .042" dia. holes on .1" grid

Part No. 8001 \$11.95



**CIRCBORD
No. 8002**

- Mounts .3", .6", .9" wide IC's
- Convenient power & ground buses
- 2 buses
- Best for wire wrapping
- Mounts 35 16-pin DIPs

Part No. 8002 \$11.95



**CIRCBORD
No. 8003**

- Mounts any DIP or discrete components
- Pad-per-hole
- Quick solder mounting
- Mounts 60 16-pin DIPs or 48 16-pin DIPs spaced

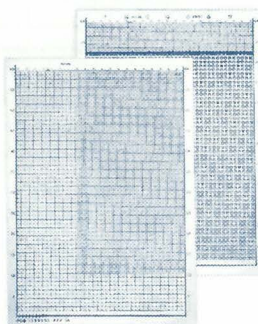
Part No. 8003 \$11.95

CIRCBORD No. 8006 **NEW!**

- Mounts up to 154 16-pin DIPs
- May be cut into smaller pieces as required
- Etched pattern on both sides with tinned plated-thru .043" dia. holes on .1" centers with .080" diameter tinned pads around holes
- May be tack soldered in place and connected using either solder or wire wrapping techniques
- Size: 5" x 13.25"

Part No. 8006 \$21.95

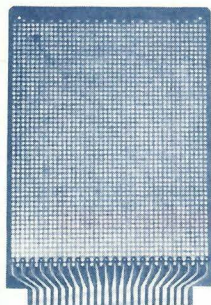
NEW! CIRCBORD No. 8007



- Patterned on both sides with 8001 (above) pattern one side, overall ground plane with etched clearance holes other side
- Ideal for high frequency or analog circuit construction
- Size: 4.5" x 6.5" (per general description above).

Part No. 8007 \$14.95

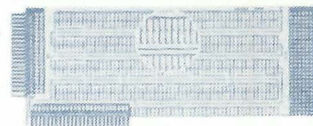
DIP PLUGBOARD — Model 3662



Plugboard 3662 measures 4.5" x 6.5" and features 22 numbered contacts on the front with 21 lettered and 1 grounding contact on the reverse side. Plugboard contacts are copper, nickel and gold plated on .156" centers. Pre-punched grids in 1/16" epoxy glass Vector "P" pattern with .042" diameter holes on .1" x .1" centers register with DIPs, DIP sockets and similar components. For soldering or wire-wrapping.

| Part No. | Description | Price |
|-------------|------------------------------------|----------------|
| 3662 | DIP Plugboard. | \$11.95 |
| 22/44SE | Mating Connector for 3662. | \$1.95 |

APPLE II, IIe & II+ & SUPER-KIM PLUGBOARDS



A peripheral interface board, plug compatible with Apple II, IIe & II+, Commodore PET and Super-Kim microcomputers, provides many features not available on the manufacturer's own boards. For I/O peripheral interfacing, experiments, or memory expansion. Mounts 22 16-pin DIPs. .042" diameter holes on .1" grid. Edge contacts: one 50-pin on .1" centers for chassis connection; one 40-pin on .1" centers for ribbon cable connection. Size: 7.7" x 3.06" x 1/16". For soldering or wire-wrapping.

| Part No. | Description | Price |
|-------------|-------------------------------------|----------------|
| 4609 | Peripheral Interface Board. | \$27.95 |

New Apple Interface Board

- Similar to the 4609 except no bus circuitry • Contacts only
- Permits maximum freedom of component placement.

| | | |
|---------------|-------------------------------------|----------------|
| 4609-1 | Peripheral Interface Board. | \$21.95 |
|---------------|-------------------------------------|----------------|

| | | |
|----------------|---|----------------|
| 3690-24 | Extender Board for Apple Plugboard. | \$33.95 |
|----------------|---|----------------|



IBM PC and XT Expansion Boards



4613

4613 - 3-HOLE SOLDER PADS AND BUSES. .043" diameter holes on .1" grid mount 44 16-pin DIPs. Interposed power and ground buses on each side. Easy interconnections to 3-hole pads with wire and component leads. Size: 13.23"L x 4.2"W x .062"D. Edge contact: 62-pin, 31 each side on .1" centers. Fits any full length slot in IBM PC™. Bracket accepts DB9-, 15-, 25-, or 37-pin I/O connector. For soldering or wire-wrapping.

Part No. 4613. \$39.95

4613-1 BUSES ONLY. .042" diameter holes on .1" centers. Bare center area for unlimited component placement. Mounts 84 16-pin DIPs.

Part No. 4613-1. \$29.95

4613-2 - VOLTAGE PLANES. .043" diameter holes on .1" centers. Mounts 55 16-pin DIP IC devices. Full power and ground planes. Three extra buses for auxiliary power. For wire wrapping. Same circuitry both sides.

Part No. 4613-2. \$39.95

4613-3 PAD-PER-HOLE. .043" diameter holes on .1" centers with .080" diameter copper pads around each hole. Power and ground buses surround the component area on both sides of the board. Mounts up to 91 16-pin DIPs. For soldering or wire wrapping.

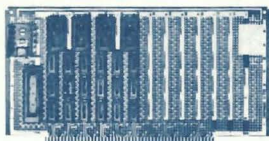
Part No. 4613-3. \$41.95



4613-2

31/62SE Mating Connector for 4613 Series Expansion Plugboards. . . . \$7.95

S100 (IEEE696) PLUGBOARD NO. 8800V

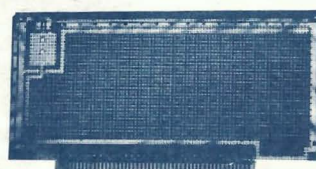


VOLTAGE PLANES

Compatible with Altair 8800 and the Imsai 8080 microcomputers, the board can hold two 40-pin DIPs, eight 24-pin DIPs and thirty-six 14- or 16-pin DIPs. Alternatively, it can hold fifty-two 14- or 16-pin DIPs, or ten 40-pin DIPs and eight 24-pin DIPs, or any combination in-between. Power is distributed to each DIP location by heavy copper-tinned power and ground planes on opposite board sides for low impedance. Has prewired regulator circuit and two heat sink provisions. For wiring ease, boards are identified by DIP zones as well as column and row hole designations. Use R681-1 or R681-2 connector. Includes heat sinks, mounting hardware, layout paper for each side, & terminal sampler kit with instructions. For wire-wrapping.

Part No. 8800V \$24.95

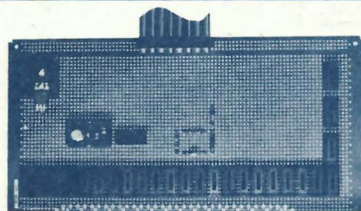
S100 (IEEE696) PLUGBOARD NO. 8801



PAD PER HOLE AND BUSES

Great flexibility — ideal for mounting wrap post tail sockets or components by "tack" soldering. Mounts 80 16-pin DIPs. Individual tinned square pads surround holes. Heavy tinned power and ground buses are provided on board periphery, and one provided regulator position has prewired power and ground connections. Top of board has a 1/4-inch 2-hole-wide copper-free area for mounting I/O connectors or other devices. Use R681-1 or R-681-2 connector. Includes heat sink and mounting hardware. For soldering or wire-wrapping.

Part No. 8801 \$26.95

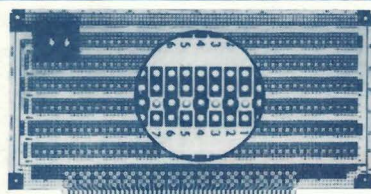


S-100 (IEEE696) Plugboard

CONTACTS ONLY

Same as other S-100 boards listed on this page, but supplied without etched bus and pad pattern for economy and maximum component mounting flexibility in the overall grid of .042" diameter holes. Drilled ejector holes and regulator mounting holes in one position are provided; mates with R681-1 or R681-2 connector. .125" spacing. For soldering or wire-wrapping.

Part No. 8801-1 \$19.95

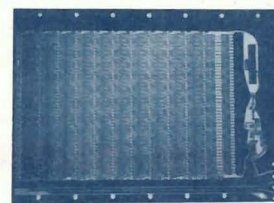


S-100 (IEEE696) "ANY-DIP" Plugboard No. 8804

VOLTAGE PLANES

The 8804 "ANY-DIP" plugboard is compatible with Altair and Imsai microcomputer boards, and holds up to 70 14- or 16-pin DIPs or any combination of DIPs with 0.3, 0.4, 0.6, or 0.9 inch spacing. The 8804 is ideal for custom or homebrew interfacing. The board also consists of two 50-hole rows of .125" spaced pads across the top, and power and ground buses in an offset ladder pattern on opposite board sides, two regulated positions, one pre-wired and one with a furnished heat sink. The dimensions of the 8804 are 10" x 5.3" x 1/16". Use R681-1 or R681-2 connector. For soldering or wire-wrapping.

Part No. 8804 \$27.95



8803 Motherboard for S-100 (IEEE696) Plugboards

This board has 11 connector mounting positions and etched tinned bus lines, solder mask, and etched circuitry for active or passive termination. Board measures 8 1/2" x 11" and is FR-4 grade G-10 glass epoxy material. User must supply own termination components & receptacles with tails spaced 0.125" x 0.250" such as Vector R681-2 connector. Includes 16 mounting spacers.

Part No. 8803 \$39.95

Unless otherwise noted, S-100 boards are 10.0 inches (254mm) wide, by 5.3 inches (135mm) high and have 50/100 nickel plated gold flashed contacts spaced 0.125 (3.2mm) centers and 0.042 inch (1.1mm) diameter holes on 0.1 inch (2.5mm) grid for DIP mounting.

R681-1 Mating Connector \$7.95
• 50/100 Contacts • Wire-Wrap • .125" Spacing • 3-Level

R681-2 Mating Connector \$9.95
• 50/100 Contacts • Wire-Wrap • .125" Spacing • 1-Level



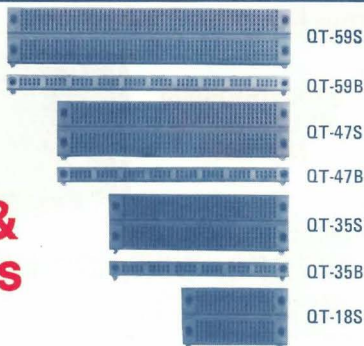
Proto Clips



Now trace signals or troubleshoot fast. Inject signals or wire unused circuits into existing boards. Scope probes, test leads lock onto Dynagrip inset. Plastic construction—no springs or pivots. Thousands of operations. Narrow throat for high density pc boards.

| Part No. | Description | Price |
|----------|-------------------|---------|
| PC-14 | 14 Pin Proto Clip | \$ 4.50 |
| PC-16 | 16 Pin Proto Clip | \$ 4.75 |
| PC-24 | 24 Pin Proto Clip | \$ 9.00 |
| PC-40 | 40 Pin Proto Clip | \$14.00 |

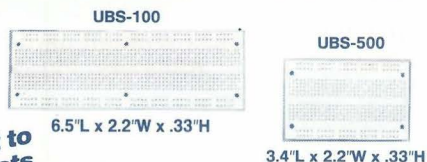
Quick Test Sockets & Bus Strips



| Part No. | Length | Hole-to-Hole | Terminals | Unit Price |
|----------|--------|--------------|-----------|------------|
| QT-59S | 6.5" | 6.2" | 118 | \$12.50 |
| QT-59B | 6.5" | 6.2" | 20 | \$ 2.99 |
| QT-47S | 5.3" | 5.0" | 94 | \$10.29 |
| QT-47B | 5.3" | 5.0" | 16 | \$ 2.59 |
| QT-35S | 4.1" | 3.8" | 70 | \$ 8.50 |
| QT-35B | 4.1" | 3.8" | 12 | \$ 2.25 |
| QT-18S | 2.4" | 2.1" | 36 | \$ 4.50 |

SOLDERLESS BREADBOARDS

NEW!



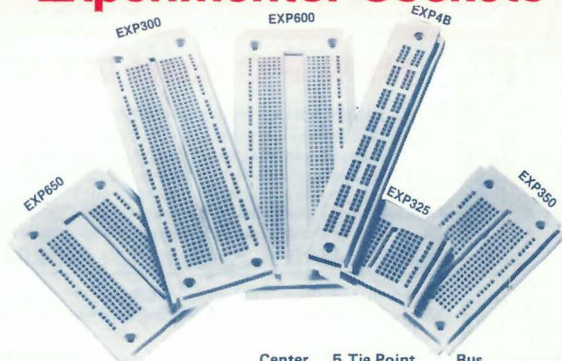
Equivalent to AP Products Super Strip!

All sockets carry a lifetime guarantee!

The UBS-100 contains 64 pairs of 5 common spring contacts for principle circuit construction and 8 bus strips of 25 common contacts for power, ground, and input/output connection for a total of 840 contact points. The UBS-500 contains 33 pairs of 5 common contact points, totaling 430 points. The UBS-500 has all the features of the UBS-100 in a smaller size.

| | |
|------------------|---------|
| Part No. UBS-100 | \$18.00 |
| Part No. UBS-500 | \$ 9.50 |

Experimentor Sockets



| Model | Length | Width | Center Channel | 5 Tie Point Terminals | Bus Strips | Price |
|--------|--------|-------|----------------|-----------------------|------------|---------|
| EXP4B | 6.0" | 1.0" | n/a | n/a | 4(160) | \$ 3.79 |
| EXP300 | 6.0" | 2.1" | .3" | 94(470) | 2(80) | \$11.49 |
| EXP325 | 1.8" | 2.1" | .3" | 22(110) | 2(20) | \$ 3.39 |
| EXP350 | 3.6" | 2.1" | .3" | 46(230) | 2(40) | \$ 6.49 |
| EXP600 | 6.0" | 2.4" | .6" | 94(470) | 2(80) | \$13.95 |
| EXP650 | 3.6" | 2.4" | .6" | 46(230) | 2(40) | \$ 8.49 |

Experimentor System



Scratchboard workpads
duplicates it in ink...



Solderless breadboard
hole-and-connection pattern...



Matchboard prepared PCBs
duplicate it in drilled foil.

| Part No. | Description | Price |
|-----------|---|---------|
| EXP-300PC | 1-Matchboard PCB's | \$2.59 |
| EXP-302 | 3-Scratchboards — 50-sheet pads | \$2.95 |
| EXP-303 | 2-Matchboard PCB's 1-EXP300 Breadboard | \$14.95 |
| EXP-304 | 2-Matchboard PCB's 1-Scratchboard — 50-sheet pad 1-EXP300 Breadboard | \$15.95 |
| EXP-305 | Accessory mounting panel locks into EXP-600, EXP-300, EXP-4P for mounting accessories | \$.89 |

Wire Jumper Kit



Clear Plastic Case with Cover — 8 1/4" L x 4 1/2" H x 1 1/8" D

Use with QT Sockets, Bus Strips, EXP Board, Proto Boards, etc. Pre-cut, pre-stripped 22AWG color-coded lengths. 25 pieces each — 14 lengths from 0.1" to 5.0". Equivalent to AP Products JK-1.

| | |
|--|---------|
| Part No. WK-1 | \$12.95 |
| WJ-350 350 Asst. Wire Jumpers, same as WK-1 without case | \$4.95 |



GLOBAL SPECIALTIES PROTO-BOARDS

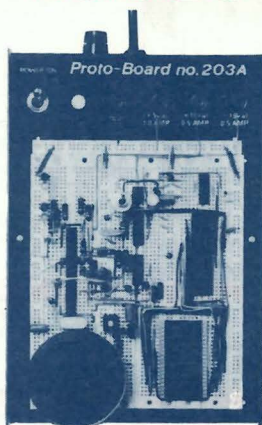
PROTO-BOARD DESCRIPTION

GLOBAL PROTO-BOARDS make designing, developing and testing electronic circuits easier and faster. Gone are the long hours of tedious soldering and resoldering. Components and wire leads can be inserted and removed without damage to either the component or the Proto-Board. Circuit changes can be made in minutes by simply moving components from one place to another.

Model PB-203 Includes 5VDC, 1 Amp power supply, available at binding posts; two binding posts (V1, V2) remain uncommitted. Recommended for TTL and other 5 Volt logic designs.

Part No. _____ Price
PB203 (assembled) \$133.00

PROTO-BOARDS



Model PB-203A Includes 5VDC, 1 Amp power supply. Also includes separate +5.5 to 18VDC and -5.5 to 18VDC power supplies, each capable of 500mA @ 15VDC. Power supplies are factory preset to ± 15 VDC. (Voltages independently adjustable with internal screwdriver adjustments.)

Part No. _____ Price
PB203A (assembled) \$174.00

Model PB-203AK is identical to PB-203A, but in kit form. Complete with comprehensive 30-page construction manual.

Part No. _____ Price
PB-203AK (unassembled kit) . . . \$149.95

All 203-Series powered Proto-Board breadboards feature fuse protection, pushbutton AC power switching and a built-in pilot light, designed for operation at 105-135VAC, 57-63Hz.

| PB-6 | PB-100 | PB-101 | PB-102 | PB-103 | PB-104 | PB-105 |
|--|---|---|---|---|--|---|
|  |  |  |  |  |  |  |
| \$19.95 | \$21.95 | \$28.95 | \$34.95 | \$59.95 | \$77.00 | \$115.50 |

| Part No. | PB-6 | PB-100 | PB-101 | PB-102 | PB-103 | PB-104 | PB-105 | *PB-203 | PB-203A | PB-203AK |
|----------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Sockets | 1/QT47S | 2/QT35S | 2/QT35S | 2/QT47S | 3/QT59S | 4/QT59S | 6/QT59S | 3/QT59S | 3/QT59S | 3/QT59S |
| Bus Strips | 2/QT47B | 1/QT35B | 4/QT35B | 1/QT35B 3/QT47B | 1/QT47B 4/QT59B | 7/QT59B | 4/QT47B 7/QT59B | 4/QT59B 1/QT47B | 4/QT59B 1/QT47B | 4/QT59B 1/QT47B |
| IC Capacity (14-pin) | 6 | 10 | 10 | 12 | 24 | 32 | 48 | 24 | 24 | 24 |
| Terminals | 126 | 152 | 188 | 248 | 450 | 612 | 912 | 450 | 450 | 450 |
| Tie Points | 630 | 760 | 940 | 1240 | 2250 | 3060 | 4560 | 2250 | 2250 | 2250 |
| Binding Posts | 4 | 2 | 1 | 1 | 4 | 4 | 5 | 4 | 4 | 4 |
| Backplate | Alum. | Alum. | Alum. | Alum. | Alum. | Alum. | Alum. | Alum. | Alum. | Alum. |
| Length | 6.0 in. 152 mm | 6.0 in. 152 mm | 6.0 in. 152 mm | 7.4 in. 187 mm | 9.0 in. 229 mm | 9.8 in. 249 mm | 9.2 in. 234 mm | 9.8 in. 248 mm | 9.8 in. 248 mm | 9.8 in. 248 mm |
| Width | 4.0 in. 102 mm | 4.5 in. 114 mm | 4.5 in. 114 mm | 4.5 in. 114 mm | 6.0 in. 152 mm | 8.0 in. 203 mm | 11.4 in. 290 mm | 6.6 in. 168 mm | 6.6 in. 168 mm | 6.6 in. 168 mm |
| Height | 1.4 in. 36 mm | 1.4 in. 36 mm | 1.4 in. 36 mm | 1.4 in. 36 mm | 1.4 in. 36 mm | 1.4 in. 36 mm | 1.4 in. 36 mm | 3.3 in. 83 mm | 3.3 in. 83 mm | 3.3 in. 83 mm |
| Powered | No | No | No | No | No | No | No | Yes | Yes | Yes |
| Weight | 7.0 oz. 199 gm | 7.5 oz. 213 gm | 9.0 oz. 255 gm | 10.0 oz. 284 gm | 21.0 oz. 595 gm | 29.0 oz. 822 gm | 29.0 oz. 822 gm | 5 lbs. 2.3 kg | 5.5 lbs. 2.5 kg | 5.5 lbs. 2.5 kg |
| Shipped | Kit | Kit | Assbl'd. | Assbl'd. | Assbl'd. | Assbl'd. | Assbl'd. | Assbl'd. | Assbl'd. | Kit |
| Price | \$19.95 | \$21.95 | \$28.95 | \$34.95 | \$59.95 | \$77.00 | \$115.50 | \$133.00 | \$174.00 | \$149.95 |

*SINGLE 5VDC @ 1 AMP POWER SUPPLY



MAX-100 Frequency Counter



• Self-contained • Four power sources available • Bright 8-digit .43" LEDs • Completely automatic • 5Hz to 100MHz (extendable to 500MHz) • Accuracy: ± 1 Count, \pm Time Base error • Cable and instruction manual included

| MAX-100 | Incl. 100-IPC & Instruction Manual. | \$189.95 |
|----------|---|----------|
| Part No. | Description | Price |
| 100-CA-1 | 117VAC 60Hz Charger/Eliminator. | \$13.95 |
| 100-MWA | Mini-Whip Antenna. | \$ 9.95 |
| 100-IPC | Input Cable with Clip Leads. | \$ 8.39 |
| 100-LLC | In-Line RF Signal Tap (50 ohm). | \$20.95 |
| 100-CC | Carrying Case (Vinyl). | \$13.95 |
| PS-500 | Prescaler — Extend MAX-100 to 500MHz. | \$71.95 |
| PSA-3 | Cable connects PS500 to MAX-100. | \$ 9.95 |

MAX-50 Frequency Counter 100Hz to 50MHz



• Self-contained • Bright 6-digit .1" LEDs • Non-glare window • 6 update/second • >1 MegOhm impedance 100Hz to 50MHz (extendable to 500MHz) • Accuracy: ± 1 Count, \pm Time Base • Cable, mini-antenna and instruction manual included

MAX-50. \$116.95

| Part No. | Description | Price |
|----------|--|---------|
| MMAC2 | 117VAC 60Hz Adapter. | \$13.95 |
| PS-500 | Prescaler — Extend MAX-50 to 500MHz. | \$71.95 |
| PSA-4 | Cable connects PS500 to MAX-50. | \$13.99 |



TRIPLE OUTPUT POWER SOURCE — MODEL 1301

The Model 1301 Power Supply is a fully regulated triple output power source designed to meet virtually all of your DC voltage requirements. Features three completely isolated voltage supplies • a fixed 5VDC @ 1.0 Amp output, and two variable 5 to 18VDC @ 0.5 Amp outputs • Size: 14"L x 7"W x 4"H

Part No. 1301. \$249.95



SWEEPABLE FUNCTION GENERATOR — MODEL 2001

The Model 2001 is designed for a wide variety of applications: audio amplifier, speaker evaluations, ultrasonics transducer, simulations, digital systems, logic testing and much more • Frequency is continuously variable from 1Hz to 100kHz • Size: 10"L x 7"W x 3"H

Part No. 2001. \$229.95

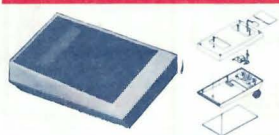


ULTRAVARIABLE PULSE GENERATOR — MODEL 4001

The Model 4001 is uniquely designed to permit precise tailoring of pulse repetition rate and duty cycle over a wide range through the independent setting of pulse spacing and pulse width • Seven decade ranges from 100ns to 1s, outputs from 0.5Hz to 5.0MHz • Size: 10"L x 7"W x 3"H

Part No. 4001. \$269.95

INSTRUMENT CASES AND HARDWARE



The Handheld Case

Includes gray plastic case shell halves; separate battery compartment cover; subminiature phone jack with battery snap connected; hexagonal-barrel screw-in antenna connector; red transparent plastic self-adhesive front panel; mounting screws. Dimensions: 6.0 x 3.0 x 1.5 inches LxWxH (152 x 76 x 38 mm) 4.5 oz. (113 gm); usable printed circuit board area 4.0 x 2.9 inches (not including battery compartment).

CTH-1. \$8.75



The Handheld II Case

Includes hardware, predrilled top plate, pre-cut blank front panel, and plastic lens. Features separate battery compartment with access door and integral tilt stand. Case front includes molded switch and display ports, matching pre-cut front panel, and case top insert plate has predrilled connector ports. Dimensions: 7.6"L x 3.75"W x 1.72"H (193 x 95 x 44 mm) • Weight: 6 oz. (272 gm.)

CTH-2. \$14.95



The Probe Case

Includes gray plastic case shell halves; threaded 1.5 inch (38mm) probe tip; hexagonal-barrel female probe tip connector; 36 inch (914mm) polarized two-wire power cord with red, black vinyl jacketed alligator clips attached, molded strain relief feature; pre-cut perf board; mounting screws. Dimensions: 5.8 x 1.0 x 0.7 inches LxWxH (147 x 25 x 18mm) 3 oz. (85 gm); usable printed circuit board area 3.9 x 1.0 inches.

CTP-1. \$13.95



The Portable Case

Includes gray plastic case shell halves; separate battery compartment cover; 2 fitted switchplates; red transparent plastic front cover; power jack; four vinyl feet; mounting screws. Dimensions: 7.75 x 5.63 x 1.75 inches LxWxH (197 x 143 x 44mm) 9 oz. (255 gm); usable printed circuit board area 5.5 x 5.3 inches (not including battery compartment); inside height with a printed circuit board in place 1.3 inches.

CBP-1. \$12.95



The Benchtopper Case

Includes gray plastic case shell halves; front and back fitted aluminum plates; four vinyl feet; mounting hardware. Dimensions: 7.0 x 10.0 x 3.0 inches LxWxH (178 x 254 x 76mm) 15 oz. (425 gm); usable printed circuit board area 6.25 x 9.5 inches; inside height 2.75 inches; 17 printed circuit board bosses .0437 inch high.

CTB-1. \$19.95



The Benchtopper II Case

Includes gray plastic case shell halves; black extenders; front and back fitted aluminum plates; four vinyl feet; mounting hardware. Dimensions: 7.0 x 10.0 x 4.0 inches LxWxH (178 x 254 x 102mm) 22 oz. (625 gm); usable printed circuit board area 6.25 x 9.5 inches; inside height 3.75 inches; 17 printed circuit board bosses .0437 inch high.

CTB-2. \$28.95

QUICK HOOK ASSORTMENT

Tapered plastic housing permits easy access to tight areas. Spring tension allows a firm "hands off" hold onto wire wrap tails, component leads, connector terminals, turret terminals, bare wires, etc. Includes 10 insulated quick hooks (5 red, 5 black).

QHA-1. \$9.50

HARDWARE POST ASSORTMENT

GREAT ASSORTMENT FOR PROTO-BOARD APPLICATIONS

These universal binding posts permit attachment of banana plugs, tip jacks, alligator clips, ring connectors, hook connectors, space connectors and bare wire. Five red and five black binding posts, 20 insulating shoulder washers, 20 hex mounting nuts are included.

HPA-1. \$8.50



Logic Probes



LP-1
Logic Probe

- Use to 50 nanoseconds, 10MHz
- Circuit powered and portable
- Compatible with most logic families

• Instant readings of logic levels for DTL, TTL and CMOS • **Input impedance:** 0.12 megOhm • **Minimum Detectable Pulse:** 50 nsec. • **Maximum Input Signal Frequency:** 10 MHz • **Pulse Detector (LED):** High speed train or single event • **Pulse Memory:** Pulse or level transition detected and stored • **Input:** Protected to 50VDC, 117VAC for 15 sec. • **Controls:** Threshold Select and Pulse Memory • **Display:** Discrete High, Low, Pulse LEDs

Part No. LP-1 Logic Probe (Assembled) \$19.95

- High speed — use to 6 nanoseconds, 70MHz
- Pulse memory stores pulse events

• Instant readings of logic levels for DTL, TTL and CMOS • **Input impedance:** 1.2 megOhm • **Minimum Detectable Pulse:** 6 nsec. • **Maximum Input Signal Frequency:** 70 MHz • **Pulse Detector (LED):** High speed train or single event • **Pulse Memory:** Pulse or level transition detected and stored • **Input:** Protected to 50VDC, 117VAC for 15 sec. • **Controls:** Threshold Select and Pulse Memory • **Display:** Discrete High, Low, Pulse LEDs

Part No. LP-3 Logic Probe (Assembled) \$78.95

- Inexpensive, easy to assemble kit
- Hi, LO, PULSE indicators
- No operating controls
- Universal logic thresholds 30%, 70% of Vcc

• Hi, Lo, pulse indicators — Universal logic threshold • **Input impedance:** 0.3 megOhm • **Minimum Detectable Pulse:** 300 nsec. • **Maximum Input Signal Frequency:** 1.5 MHz • **Pulse Detector (LED):** High speed train • **Input:** Protected to 50VDC, 117VAC for 15 sec. • **Controls:** None • **Display:** Discrete High, Low, Pulse LEDs

Part No. LPK-1 Logic Probe Kit \$23.49

Digital Pulsers



DP-1
Digital Pulser

- Circuit powered
- Digital signal injector
- Short circuit protected
- Handheld pulse generator
- Single pulse or 100 pps train
- Compatible with most logic families
- Senses state of node, presets pulse polarity

Input: Probe tip senses logic state of node, determined at 40% of Vcc; protected to ± 50 VDC (DPK-1 not applicable). Impedance, minimum of 20 megOhms.

Output: DP-1, logic state of node sensed at probe tip by input circuit determines whether output pulse will source or sink current, low node is automatically pulsed to high (sourcing), high node to low (sinking); DPK-1, positive output pulse followed 30 msec later by a negative output pulse; DP-1/DPK-1, output is high impedance when not pulsing, can pulse into short circuit continuously without damage.

Pulse Width: DP-1 — TTL 1.5 μ sec $\pm 30\%$; CMOS 10 μ sec $\pm 30\%$; DPK-1 — TTL 1.5 μ sec $\pm 30\%$; CMOS 3 μ sec $\pm 30\%$.

Rise Time: 100 nsec.

Fall Time: TTL, less than 500 nsec at one TTL load; CMOS, less than 8 μ sec, at 0.1 megOhm load.

DP-1 comes complete with instruction manual, LDA-5 ground lead, LDA-8 power lead, and LDA-1 probe tip.

Part No. DP-1 Digital Pulser (Assembled) . . . \$84.49

DPK-1 Kit comes complete with all parts, wire, PCB, and construction manual. (DP-1 in Kit form)

Part No. DPK-1 Digital Pulser Kit \$35.49

Logic Probe and Digital Pulser Accessories

| Part No. | Description | Price |
|----------|---|--------|
| LDA-1 | 1.5 inch Tip | \$1.39 |
| LDA-2 | 2.5 inch Tip | \$1.39 |
| LDA-3 | 3 inch E-Z Hook and Adapter | \$5.95 |
| LDA-4 | 3 inch Ground Clip with E-Z Hook | \$6.39 |
| LDA-5 | 3 inch Alligator Clip | \$4.19 |
| LDA-6 | Test Probe Adapter | \$5.59 |
| LDA-7 | Standard Banana Plug | \$2.25 |
| LDA-8 | Power/Ground Leads with Alligator Clips | \$4.19 |
| LDA-9 | Power/Ground Leads with E-Z Hooks | \$9.79 |

Monitors to 16-pin DIP. 16 discrete LED display. Clips to 16 pin DIPs. **Impedance:** 0.1 Meg Ohm. Threshold voltage reference determines turn-on point for each of 16 LED indicators. Threshold voltage corresponds to DTL, TTL and other logic families whose logic one to logic zero differentials are 5-7 volts. **Threshold:** 2.0 \pm 0.2VDC. Single mode, single logic threshold. Operating power from highest and lowest voltages appearing at its sixteen inputs, is entirely circuit-powered. **Power derived from circuit under test:** 4VDC min. 15VDC max. across any two inputs. **Max. current drain:** 200mA @ 10VDC. **Size:** 4.0" L x 2.0" W x 1.5" D. **Weight:** 3 ozs.

LM-1 16-Channel Logic Monitor \$79.95

LM-1 16-Channel Logic Monitor



Logical Analysis Test Kits



LTC-1

LTC-2

LTC-1 Includes: LP-1 Logic Probe, one 3" (76mm) ground lead with alligator clip.

LTC-2 Includes: LP-3 Logic Probe, two 3" (76mm) ground leads with alligator clips.

Both Models Include: LM-1 Logic Monitor™ DP-1 Digital Pulser; two 1 1/2" (38mm) probe tips, two 2 1/2" (64mm) probe tips; one 3" (76mm) "easy-clip" adapter for use in place of probe tip; one probe tip to "easy-clip" converter, and one probe tip to banana plug converter; two 36" (914mm) power/ground leads with alligator clips; complete manuals for each instrument; custom-molded cases. Dimensions (LxWxD): 9.1 x 7.5 x 2.25 inches (231 x 191 x 57mm). Weight: 23 oz. (652 gm).

| Part No. | Description | Price |
|----------|---------------------|----------|
| LTC-1 | Standard to 10MHz | \$214.95 |
| LTC-2 | High Speed to 70MHz | \$274.95 |

POWER SUPPLIES

Only 500
Available!

**5VDC
@ 1 Amp**



Transaction Technology, Inc.

Power Supply

5VDC @ 1 AMP REGULATED

- Output: +5VDC @ 1 amp (also +30VDC) regulated
- Input: 115VAC 60Hz
- Two-tone (black/beige) self-enclosed case
- 6 foot, 3-conductor black power cord
- Weight: 3 lbs.
- Size: 6 1/2" W x 7" D x 2 1/4" H
- Data included

Part No. PS51194 \$14.95 each

**24/28VDC
@ 0.5 Amp**



STANDARD POWER SUPPLIES Regulated Adjustable Power Supply

Only 150
Available!

- Input: 115/230VAC, 47-440Hz
- Output: +24/28V @ 0.5A
- 2 mounting surfaces
- Line/Load regulation: $\pm 0.1\%$
- Ripple: $\pm 0.1\%$
- Voltage adjustment potentiometer
- Weight: 1 1/2 lbs.
- Size: 4.75" L x 4" W x 1.62" H
- Data incl.

Part No. SPS 15-24/28 \$24.95 each

**5VDC @ 3 Amps/
6VDC @ 2.5 Amps**

**5VDC @ 6 Amps/
6VDC @ 5 Amps**

POWER/MATE CORP.

Regulated Power Supplies

- Input: 105-125/210-250VAC at 47-63Hz
- Line/Load regulation: $\pm 0.05\%$
- Output ripple: 3mV peak-to-peak typical, better than 1mV RMS
- UL recognized
- CSA certified
- Remote sensing
- Short circuit and overload protection
- Convection cooled
- 3 mounting surfaces
- Overvoltage protection
- Spec. included

| Part No. | Output | Size | Weight | Price |
|----------|-------------------|--------------------------------|--------|-------------|
| EMA5/6B | 5V @ 3A/6V @ 2.5A | 4 7/8" L x 4" W x 2 1/8" H | 2 lbs. | \$29.95 ea. |
| EMA5/6C | 5V @ 6A/6V @ 5A | 5 1/8" L x 4 7/8" W x 2 1/8" H | 4 lbs. | \$39.95 ea. |



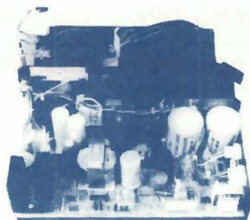
Only 1300
Available!



Only 450
Available!

**+5VDC
@ 7.6 Amps**

**+12VDC
@ 1.5 Amps**



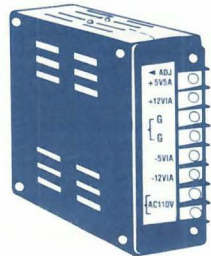
Regulated Switching Power Supply

Only 450
Available!

- Input: 115VAC 50-60Hz @ 3 amps, or 230VAC 50Hz @ 1.6 amps
- Output: +5VDC @ 7.6 amps, +12VDC @ 1.5 amps
- Forced air cooling
- Fan voltage and power supply selector switches (115/230VAC)
- Circuitry mounted on a 5 1/2" x 11 1/2" printed circuit board
- All heat sink mounted for cooling
- Unique for computer applications
- 8 foot black power cord
- Wt: 6 lbs.
- Size: 11 1/2" L x 13 1/4" W x 3 3/4" D
- Data included

Part No. PS94V0 \$34.95 each

**+ 5VDC @ 5A
- 5VDC @ 1A
+12VDC @ 1A
- 12VDC @ 1A**



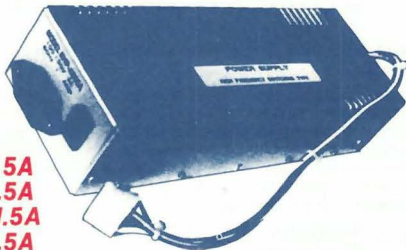
4-Channel Switching Power Supply



- Microprocessor, mini-computer, terminal, medical equipment and process control applications
- Input: 90-130VAC 47-440Hz
- Output: +5VDC @ 5 amps, -5VDC @ 1 amp; +12VDC @ 1 amp, -12VDC @ 1 amp
- Line regulation: $\pm 0.2\%$
- Ripple: 30mV p-p
- Load regulation: $\pm 1\%$
- Stability: 0.1% after 8 hours
- Overcurrent protection: 110-130% automatic current limiting
- Adjustment: 5V main output $\pm 10\%$
- Cooling method: convection cooled
- Wt: 1 1/2 lbs.
- Size: 6-3/8" L x 1-7/8" W x 4-15/16" H
- Spec. included

Part No. FCS-604A \$69.95 each

**+ 5VDC @ 5A
- 5VDC @ .5A
+12VDC @ 1.5A
- 12VDC @ .5A**



Switching Power Supply for APPLE II, II+ and IIe*



- Can drive four floppy disk drives and up to eight expansion cards
- Short-circuit and overload protection
- Fits inside Apple computer
- Fully regulated +5V @ 5A, +12V @ 1.5A, -5V @ .5A, -12V @ .5A
- Apple-type plug in power cord included
- Size: 9-7/8" L x 3 1/2" W x 2 1/4" H
- Wt: 2 lbs.
- Spec. included

Part No. KHP4007 \$59.95 each

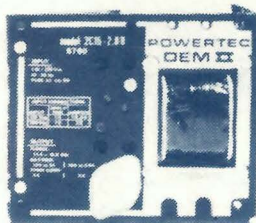
*APPLE and APPLE IIe are registered trademarks of APPLE Computers.

WE WILL BE SPECIALIZING IN POWER SUPPLIES — CALL OR WRITE FOR CURRENT FLYERS

POWER SUPPLIES

NEW!

- +12VDC**
@ 3 Amps/
- +15VDC**
@ 2.8 Amps



POWERTEC Regulated Power Supply

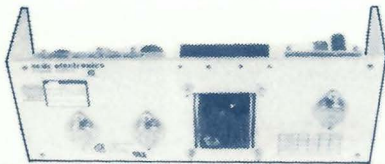
Only 100
Available!

• Input voltage range: 105-125VAC or 210-250VAC field selectable, 47-63Hz • Output range: +12VDC @ 3 Amps/+15VDC @ 2.8 Amps • Line regulation: $\pm 0.05\%$ • Load regulation: $\pm 0.05\%$ • Current limiting • Remote sensing • Internal overvoltage protection • IC regulated design • UL recognized • Reverse polarity protection • Electrostatic/safety shield • Output screw terminals • Size: 5.62"L x 4.87"W x 2.95"H • Weight: 4 lbs. • No spec. available

Part No. PS780..... \$24.95

NEW!

- +5VDC**
@ 3 Amps
- +12VDC**
@ 1 Amp
- 12VDC**
@ 1 Amp



ACDC ELECTRONICS Triple Output Regulated Power Supply

Only 215
Available!

• Input voltage range: 110-240VAC @ 50-60Hz • Output: +5VDC @ 3 Amps, +12VDC @ 1 Amp, -12VDC @ 1 amp • Industry standard outline and mounting • UL recognized • CSA certified • Open frame construction • Line/load regulation: $\pm 0.05\%$ • Overvoltage protection: standard on 5V output • Size: 10 1/4"L x 2 1/2"W x 4"H • Weight: 6 lbs. • Spec. included

Part No. ETV351..... \$49.95

- +5VDC @ 5 Amps**
- +12VDC @ 1.8 Amp**
- +12VDC @ 2 Amps**
- 12VDC @ 0.5 Amp**

NEW!



KEPCO/TKD Switching Regulated Power Supply

Only 450
Available!

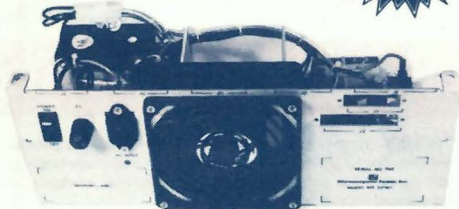
• Ideal for CRT display monitors and disk drive applications

Special features include a circuit to minimize transient disturbances on the +12V output • Built-in EMI filters • Input voltage range: 115-230VAC @ 50/60Hz • Output: +5VDC @ 5 Amps, +12VDC @ 1.8 Amp, +12VDC @ 2 amps, -12VDC @ 0.5 Amp • UL recognized • CSA certified • Size: 7 3/4"L x 6-3/16"W x 1 1/4"H • Weight: 2 lbs. • Data included

Part No. MRM174KF..... \$59.95

- +5VDC @ 6 Amps**
- +12VDC @ 4 Amps**
- 12VDC @ 0.5 Amps**

NEW!



MICROCOMPUTER POWER INC. Regulated Power Supply

Only 200
Available!

• Perfect for computer or disk drive systems

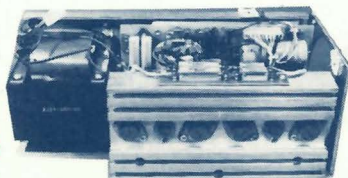
Supply has AMP connectors for direct connection to two 5 1/4" disk drives • RFI filtered AC power input with fuse and switch • Cooling fan enclosed on panel • Input voltage range: 100/115/200/230VAC, 47/63Hz • Output: +5VDC @ 6A with overvoltage and current limit, +12VDC @ 4A with current limit, -12VDC @ 0.5A with current limit • Open frame construction • Size: 13 1/4"L x 6 1/4"W x 5"H • Wt.: 9 lbs. • Data included

Part No. CP167..... \$59.95

POWER PAC INC. Regulated Power Supply

Only 300
Available!

- +5VDC @ 11 Amps**
- 5VDC @ 1 Amp**
- +12VDC @ 2 Amps**
- 12VDC @ 0.5 Amp**
- +24VDC @ 3 Amps**

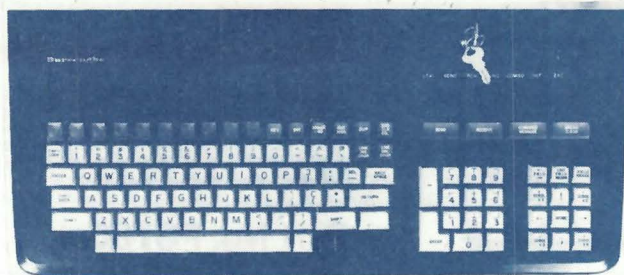


| Output Number: | 1 | 2 | 3 | 4 | 5 |
|--------------------------------------|------------|------------|-----------|------------|----------|
| • Voltage | +5V | -5V | +12V | -12V | +24V |
| • Current | 11A | 1A | 2A | 0.5A | 3A |
| • Adjustment Range | $\pm .25V$ | Fixed | $\pm .6V$ | Fixed | $\pm 1V$ |
| | | 4.75-5.25V | | 11.4-12.6V | |
| • Line Regulation | 0.1% | 0.1% | 0.5% | 0.16% | 0.02% |
| • Load Regulation | 0.3% | 1.2% | 0.2% | 0.5% | 0.1% |
| • Ripple | 10mV | 10mV | 10mV | 12mV | 10mV |
| • Overvoltage Protection | 6-7V | 6-7.5V | 13.8- | 13.8- | N/A |
| • Size: 12 1/2"L x 6 1/2"W x 4 1/2"H | | | 15.6V | 15.6V | |
| • Weight: 17 lbs. • Spec. included | | | | | |

Part No. PS2922..... \$69.95 each

106-KEY ASCII KEYBOARD

**400
Available!**



**Nationally
Known
Manufacturer!**

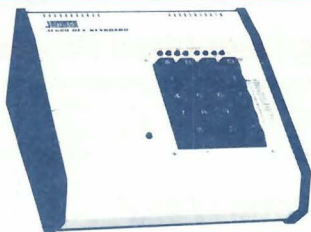
The terminals of the KB139 ASCII Keyboard were designed to be daisy chained around a central host computer and used as individual work stations. The host system could then selectively address any machine in the network for any message it may have.

- Hall effect switching • All units enclosed in cases • 8-bit serial ASCII (12-bit data structure — requires 3 instruction bits and 1 sync bit) • Numeric and cursor keypad • 10 user-definable keys • 7 LED function displays • Serial output • 50" interface cable with 9 pin sub-miniature connector (only 6 pin hook-up) • Uses Intel 8048/8748 • Security lock (includes 2 keys to guard against unauthorized use) • Electrical requirements: 5V • N-key rollover • Color (case): white with black panel • Color (keycaps — main keyboard and keypad): grey • Color (special function keys): blue • Size: 21 $\frac{1}{8}$ "L x 9.8"W x 3 $\frac{1}{8}$ "H • Weight: 6 $\frac{1}{2}$ lbs. • Documentation included

KB139 106-Key ASCII Keyboard & Enclosure \$49.95

**Jameco
ELECTRONICS**

JE600 HEXADECIMAL ENCODER KIT



The JE600 Encoder Keyboard Kit provides two separate hexadecimal digits produced from sequential key entries to allow direct programming for 8-bit microprocessor or 8-bit memory circuits. Three additional keys are provided for user operations with one having a bistable output available. The outputs are latched and monitored with 9 LED readouts. Also included is a key entry strobe.

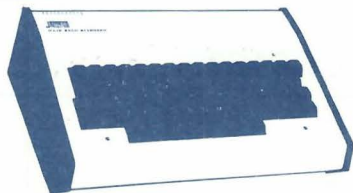
- 19-key hex keyboard • Full 8-bit latched output for microprocessor use
- Debounce circuit provided for all 19 keys • 9 LED readouts to verify entries
- Easy interfacing with standard 16-pin DIP jumper connector • Power Requirement: +5VDC • 3 user-define keys • Size: 1 $\frac{1}{2}$ "H x 4 $\frac{7}{8}$ "W x 6 $\frac{1}{4}$ "L (JE600 Kit)

JE600/DTE-HK Hexadecimal Encoder Keyboard Kit (As Shown) . \$79.95

| | | |
|-----------|---|---------|
| JE600 Kit | 19-Key Hexadecimal Keyboard, PC Board & Components (case not included). . . | \$49.95 |
| K19 | 19-Key Keyboard (Keyboard only) See page 57 for detailed description | \$14.95 |
| DTE-HK | (Case only — 3 $\frac{1}{2}$ "H x 8 $\frac{1}{4}$ "W x 8 $\frac{3}{4}$ "D). | \$44.95 |

**Jameco
ELECTRONICS**

JE610 ASCII ENCODED KEYBOARD KIT



The JE610 ASCII Keyboard Kit can be interfaced into most parallel output computer systems. The kit comes complete with industrial grade keyboard switch assembly (62-keys), IC's, sockets, connector, electronic components and a double-sided printed circuit board.

- 60 keys generate the 128 characters. upper and lower case ASCII set • Fully buffered • 2 user-define keys • Caps lock for upper-case-only alpha characters
- Utilizes a 2376 (40-pin) encoder read-only memory chip • Outputs directly compatible with TTL/DTL and MOS logic levels • Parallel output • Easy interfacing with a 16-pin DIP or 18-pin edge connector • Power Requirement: +5V @ 150mA and -12V @ 10mA • Size: 1 $\frac{1}{2}$ "H x 6 $\frac{1}{2}$ "W x 13 $\frac{1}{4}$ "L (JE610 Kit)

JE610/DTE-AK ASCII Encoded Keyboard Kit (As Shown) \$124.95

| | | |
|-----------|--|---------|
| JE610 Kit | 62-Key Keyboard, PC Board & Components (case not included). | \$79.95 |
| K62 | 62-Key Keyboard (Keyboard only) See page 57 for detailed description | \$34.95 |
| DTE-AK | (Case only — 3 $\frac{3}{4}$ "H x 14 $\frac{1}{4}$ "W x 8 $\frac{3}{4}$ "D). | \$49.95 |

JE212 —12VDC Adapter Board Kit for JE610 Kit (Provides —12VDC from incoming 5VDC). \$9.95

GENERAL PURPOSE KEYBOARDS

HI-TEK 14-Key Numeric Keypad

- Mechanical SPST switching
- Charcoal grey keycaps
- Mounted on PC board
- Matches Stackpole K-62 keyboard (below)
- Fits DTE-8 enclosure
- Size: 5"L x 3"W x 1 1/2"H
- Pin-out available

Part No. K14. . . . \$9.95 ea.

| Part No. | Description | 1-49 | 50-99 | 100+ |
|----------|------------------------------------|------|-------|------|
| K-CAP | Blank Key Cap (.710" sq. 13° tilt) | .99 | .75 | .59 |



STACKPOLE 19-Key Hexadecimal Keyboard

- Mechanical SPST switching
- Charcoal grey keycaps
- Matches Stackpole K-62 keyboard (below)
- Fits DTE-8 enclosure
- Size: 3"L x 3 3/4"W x 1 1/2"H
- Data sheet available

Part No. K19. . . . \$14.95 ea.

| Part No. | Description | 1-49 | 50-99 | 100+ |
|----------|------------------------------------|------|-------|------|
| K-CAP | Blank Key Cap (.710" sq. 13° tilt) | .99 | .75 | .59 |



CALCULATOR KEYBOARDS

Molded keypad assembly provides the user unlimited applications for numeric keyboard entry requirements. User may also alter the unused keypads for special key-in command requirements. No specs available.

2 3/4"L x 3 1/2"W x 1 1/2"H
4 Function

Part No. K17 (17-Key). . . . \$2.95

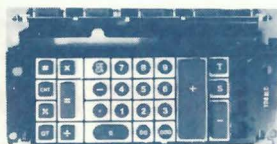
2-13/16"L x 3 1/2"W x 1 1/2"H
5 Function

Part No. K18 (18-Key). . . . \$3.95



26-Key Keyboard

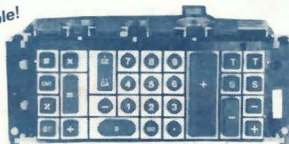
ALPS
1000
Available!



Part No. KB297226. . . . \$1.95

29-Key Keyboard

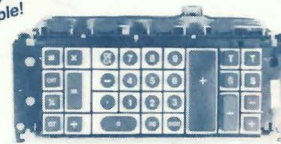
ALPS
6500
Available!



Part No. KB297040. . . . \$2.49

30-Key Keyboard

ALPS
2500
Available!



Part No. KB297043. . . . \$2.95

DESCRIPTION: All three of the ALPS keyboards above have four switches: one 7-position decimal switch; two 2-position switches (one being on/off); and one 3-position switch. Mechanical SPST switch has a 22-pin edge card connection. Includes pin-out diagram for each keyboard. Size: 9 3/4"L x 4 1/2"W x 1 3/4"H.

UNENCODED QWERTY KEYBOARDS

54-KEY KEYBOARD Mitsumi Keyboard

- Unencoded all-purpose QWERTY keyboard
- SPST keyswitches
- 20 pin ribbon cable connection
- Low profile keys
- Features: cursor controls, caps, function, control, enter and shift keys
- Color (keycaps): grey
- Size: (incl. mounting plate): 13 1/8"L x 4 1/4"W x 3/4"H
- Weight: 1 lb.
- Fits in DTE-14 enclosure
- Data sheet included

KB54. (1900 Available) \$14.95



62-KEY KEYBOARD Stackpole Keyboard

- The right keyboard for your standard or custom keyswitch/keyboard requirements
- Unencoded all-purpose QWERTY keyboard
- Charcoal grey keycaps
- Mechanical SPST switching
- Fits into DTE-14 enclosure (see page 59)
- Size: 13"L x 3 3/4"W x 1 1/2"H
- Wt: 1 lb.
- Data sheet available

K-62. \$34.95

| Part No. | Description | 1-49 | 50-99 | 100+ |
|----------|------------------------------------|------|-------|------|
| K-CAP | Blank Key Cap (.710" sq. 13° tilt) | .99 | .75 | .59 |



UNENCODED & ASCII ENCODED KEYBOARDS

MISCELLANEOUS ENCODED COMPUTER KEYBOARDS

These computer keyboards can be used for experimental purposes, special school projects, or even spare parts (e.g. keyswitches, keycaps, chips, etc.). Minimum of 75 keys. Serial and parallel interfaces. Many have separate numeric and cursor keypads. Top manufacturers include Cherry (SPST mechanical keyswitching) and Micro Switch (Hall Effect switching). Sizes and styles will vary. No specs. available.

KB-CT-MISC \$14.95



77-KEY ASCII CHERRY KEYBOARD*

- 18-key keypad with cursor controls • SPST mechanical keyswitches • 26-pin male header connector • Features: escape, control, erase, line feed, new line, break, delete, case, back space, home, enter, cursor controls and shift keys • Color: main and numeric — white, cursor controls — grey • Size: 16 $\frac{5}{8}$ "L x 6 $\frac{1}{4}$ "W x 1 $\frac{1}{2}$ "H • Fits DTE-20 enclosure (see page 59) • Spec. included

KB7704 (800 available) \$24.95



87-KEY MICRO SWITCH KEYBOARD

- **Ideal format for TELEX operation** • Three keypads: special function, cursor and numeric • Hall Effect switching • 26-pin male header connector • Features: Cursor controls, escape, erase, print, send, reset, delete, break, insert character, delete character, and many other special functions • Color: white/black • Size: 18"L x 5 $\frac{7}{8}$ "W (including extended PC board) x 1 $\frac{3}{4}$ "H • Fits DTE-20 enclosure (see page 59) • Spec. included

KB16392. (275 available) \$24.95



93-KEY KEYTRONIC KEYBOARD

- **Ideal keyboard for word processing** • 3 keypads: special function, cursor and numeric • 15-pin socket strip connection • Features: Indent, outline, center, tab, caps lock, alternate shifts, mark, move, phrase, cancel, menu, insert, delete, cursor controls, and much more • Three status LEDs • Color: black • Size: 23"L x 5"W x 1 $\frac{1}{2}$ "H • Spec. included

KB2312. (475 available) \$29.95

**We stock a large selection of Cherry Keycaps. Write for a complete Cherry Keycap list today.*

UNENCODED & ASCII ENCODED KEYBOARDS

ATTENTION SCHOOLS AND HOBBYISTS!



MICRO SWITCH KEYBOARDS

Call for Quantity Discounts!



LARGE SELECTION OF ENCODED COMPUTER KEYBOARDS

Can be used for experimental purposes, special school projects or even spare parts (e.g. keyswitches, keycaps, chips). Some of the keyboards are serial interface; some are parallel interface. All have status LEDs and approximately 68 keys. Some have numeric keypad capabilities, cursor controls, or both. Hall effect switching. No specs available. Approximate size: 12 1/2" L x 6" W x 1 1/2" H. Weight: 2 lbs. Styles may vary.

KB-MISC. \$9.95

All-Purpose QWERTY!



60-KEY UNENCODED STACKPOLE KEYBOARD

- SPST mechanical keyswitches • 18-pin female ribbon cable connection
- Keyboard mounted on sturdy PC board • Color (keys): tan, brown, red & blue
- Size: 12" L x 5-1/16" W x 1 1/2" H • Fits DTE-14 enclosure • Spec included

Part No. KB60. (2000 available). \$14.95

76-KEY ASCII KEYBOARD



- SPST mechanical switching • Operates in upper and lower case • 5 user-function keys: F1-F5 • Features: Cancel, Shift Lock, Interrupt, Control, Delete, Back Space, Enter, New Line & Shift keys • Color (keys): tan • Size: 16-9/16" L x 6 3/8" W x 1 5/8" H • Wt.: 2 lbs. • Pin-out included.

Part No. KB76. (1000 available). \$29.95



66-KEY UNENCODED KEYTRONIC KEYBOARD

- 10-key numeric keypad • SPST mechanical keyswitches • Connection: Two 18-pin edge-cards • Parallel output • Color (keys): black and grey • Size: 14 1/4" L x 5" W x 2" H (including mounting plates) • Fits DTE-20 enclosure • Spec included

Part No. KB6600. (300 available). \$19.95



106-KEY ASCII MICRO-SWITCH KEYBOARD

- 8-bit serial ASCII • Numeric and cursor keypad • Hall effect switching
- 8 user-definable keys • 7-pin header connection • Japanese/English characters • Color (keys): blue/grey • Size: 19 7/8" L x 7 1/8" W x 1 1/2" H • Wt.: 3 1/2 lbs. • Fits DTE-22 enclosure • Documentation included.

Part No. KB106SD29-4. (130 available). \$29.95



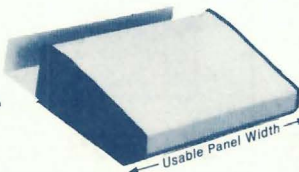
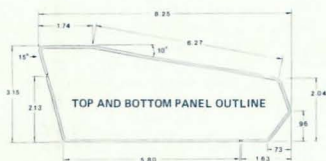
87-KEY ASCII CHERRY KEYBOARD

- 8-bit parallel ASCII • SPST mechanical keyswitches • 11-key numeric keypad • Cursor keypad • 26-pin header connector • Color: main and numeric keypad - grey, cursor keypad - white • Size: 19" L x 6 1/4" W x 1 1/2" H • Fits DTE-20 enclosure • Spec included.

Part No. KB3300. (300 available). \$39.95

KEYBOARD ENCLOSURES

UNIVERSAL COMPUTER KEYBOARD ENCLOSURE



• Construction: The "DTE" Blank Desk-Top Keyboard Enclosures are designed for easy modification for today's computer equipment • High-strength epoxy molded end pieces in mocha brown finish • Sliding rear/bottom panel for service and component accessibility • Top and bottom panels .080" thick aluminum alodine type 1200 finish (gold tint color) for best paint adhesion after modification • Vented top and bottom panels for cooling efficiency

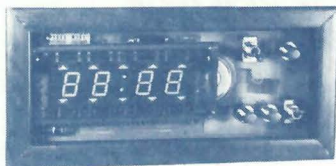
| | | |
|--------|-------------------------------------|---------|
| DTE-8 | Usable Panel Width 7.5". | \$28.95 |
| DTE-11 | Usable Panel Width 10.13". | \$29.95 |
| DTE-14 | Usable Panel Width 13.50". | \$31.95 |
| DTE-20 | Usable Panel Width 19.25". | \$36.95 |
| DTE-22 | Usable Panel Width 21.375". | \$39.95 |

JAMECO QUALITY KITS

Perfect for Schools, Hobbyists and Engineers



4-Digit Fluorescent Alarm Clock Kit



FEATURES:

- Bright 4-digit 0.5" high display
- Flashing colon
- Alarm tone 500Hz once per second
- 10 minute snooze alarm
- AM/PM indicator
- Automatic display (photo cell) dimmer

DESCRIPTION: The JE750 Clock Kit is a versatile 12-hour digital clock with 24-hour alarm. The clock has a bright 0.5" high blue-green fluorescent display. The 24-hour alarm allows the user to disable the alarm and immediately re-enable the alarm to activate 24 hours later. The kit includes all documentation, components, case and wall transformer. Size: 6-5/8" L x 3 3/4" H x 1 1/4" D.

JE750 Alarm Clock Kit . . \$29.95



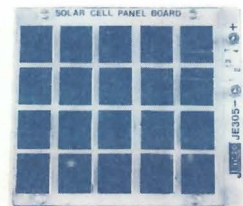
Digital Thermometer Kit



Dual sensors for indoor/outdoor or dual monitoring applications. Sensors can be extended up to 500 feet. Manual switch for sensor selection. Continuous LED .8" ht. display. Range: -40°F to 199°F, -40°C to 100°C. Accuracy: ±1° (nominal). Calibrate either Fahrenheit or Celsius. Simulated walnut case. AC wall adapter included. Size: 6 5/8" L x 3 1/4" H x 1 3/4" D.

JE300 \$39.95

Sun Power Your Electronics! Solar Cell Panel Kit



FEATURES:

- Output: 10VDC, to 100mA in Series 5VDC, to 200mA in Parallel
- Panel may be easily connected for Series or Parallel out
- Over 11 square inches of active cell surface
- Voltage tap line @ 0.5V increments
- Provision for charging batteries
- Overall panel size: 4 3/4" L x 4 1/2" H x 1/2" D

The JE305 Solar Cell Panel Kit contains 20 each solar cells. On the panel board are power line taps which allow the user to select voltages (one voltage at a time) from 0.5VDC to 10VDC. The applications of each panel can be further expanded by coupling additional panels in series for more voltage or in parallel for more current. The premium grade solar cells provide the current necessary for the operation of most portable transistor radios, small battery powered cassette tape players and unlimited experimental solar projects.



JE305 \$39.95



6-Digit Clock Kit

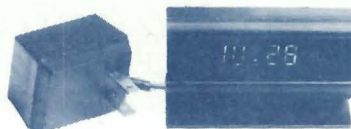


Bright .300" ht. common cathode display. Uses MM5314 clock chip. Switches for hours, minutes and hold functions. Hours easily viewable to 20 feet. Simulated walnut case. 115VAC — 12 or 24 hour operation. Includes all components, case and wall transformer. Size: 6-5/8" L x 3-1/8" H x 1 1/4" D.

JE701 \$19.95



4-Digit Clock Kit



Bright .362" ht. common cathode display. Sequential flashing colon. 12 or 24 hour operation. Black extruded aluminum case. Pressure switches for hours, minutes and hold functions. Includes all components, case and wall transformer. Size: 3-3/16" L x 1 1/4" H x 1 1/4" D.

JE730 \$19.95



Jumbo 6-Digit Clock Kit



Four .800" ht. and two .300" ht. common anode displays. Uses MM5314 clock chip. Pressure switches for hours, minutes and hold functions. Hours easily viewable to 30 feet. Simulated walnut case. 115VAC — 12 or 24 hour operation. Includes all components, case and wall transformer. Size: 6-5/8" L x 3-1/8" H x 1 1/4" D.

JE747 \$24.95



Function Generator Kit

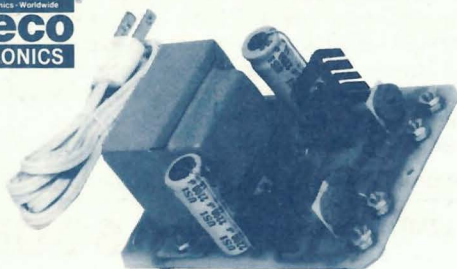


Provides three basic waveforms: sine, triangle and square wave. Frequency range: 1Hz to 100KHz. Output amplitude from 0V to over 6V (peak to peak). Uses a 12V supply or a ± 6V split supply. Includes chip, PC board, components and instructions.

JE2206B \$19.95

ALL ABOVE KITS COME WITH COMPLETE ASSEMBLY INSTRUCTIONS.

JAMECO POWER SUPPLY KITS



ADJUSTABLE POWER SUPPLY KIT

Adjustable Positive and Negative Supplies

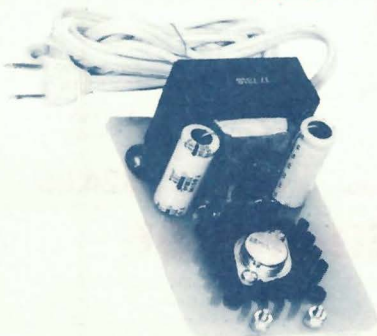
± 5 to ± 15 VDC Regulated 175mA – 750mA per Supply

FEATURES • Adjustable regulated power supplies • Positive and negative 1.2VDC to 15VDC • Power output (each supply): 5VDC @ 500mA, 10VDC @ 750mA, 12VDC @ 500mA, and 15VDC @ 175mA • 120VAC input • Two, 3-terminal adjustable regulators with thermal overload protection • Heat sink regulator cooling • LED "on" indicator • PC board construction • Size: $3\frac{1}{2}$ "W x $5\frac{1}{16}$ "D x 2"H

JE215 Kit. \$24.95



Regulated Power Supply Kit

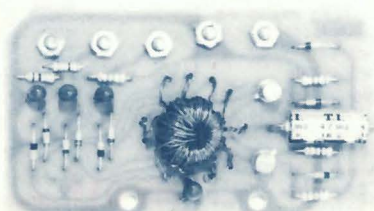


- Provides a solid 1 amp @ 5V output
- 120VAC input
- Uses LM309K Regulator
- Heat Sink provided
- PC board construction
- Includes components, hardware and instructions
- Size: $3\frac{1}{2}$ "L x 5"W x 2"H

JE200 Kit. . . \$14.95



Multi-Voltage Board Kit



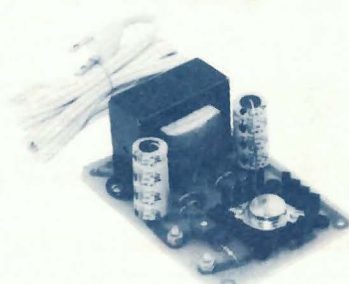
ADAPTS TO JE200
TO SUPPLY THREE VOLTAGES

- ± 12 V:160mA, ± 9 V:200mA, -5 V:250mA output
- Independent load rating at single terminal
- DC/DC Converter with +5V input
- Toroidal hi-speed switching XFMR
- Short circuit protection
- PC board construction
- Piggy-back to JE200 board for mounting
- Loads up to 2 watts total power
- Size: $3\frac{1}{2}$ "L x 2"W x $9\frac{1}{16}$ "H

JE205 Kit. . . \$12.95



Variable Power Supply Kit



- Full 1.5 amp @ 5-10V output
- Up to .5 amp @ 15V output
- 120VAC input
- Heavy duty transformer
- 3-terminal IC Voltage Regulator (LM309K)
- Heat Sink provided for cooling efficiency
- PC board construction
- Size: $3\frac{1}{2}$ "L x 5"W x 2"H

JE210 Kit. . . \$19.95



Adjustable Switching Power Supply

4 TO 24VDC REGULATED, UP TO 5 AMPS

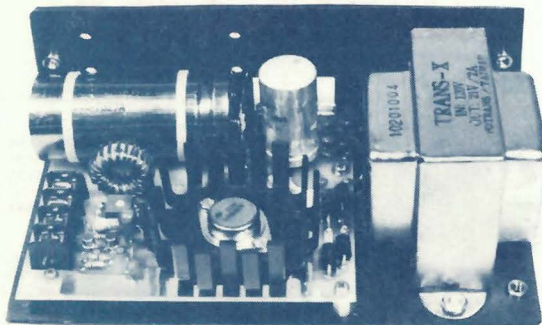
FEATURES • Adjustable: 4 to 24VDC, 5A @ 5VDC (*Derated to 0.5A @ 24VDC) • Regulated outputs with over-current protection • Input: 115VAC 50/60Hz • Output variations within 20mV • Out Sense terminals • Step down regulator • Rigid frame with mounting holes • Size: 8.25"L x 4.25"W x 2.25"H • Weight: 3.25 lbs.

*Derated current rating: 4.8A @ 6VDC; 4.1A @ 9VDC; 3.3A @ 12VDC; 1.9A @ 18VDC

The JE224 is a high-efficiency power supply utilizing a LH1605 (8-pin, TO-3 package) 5 amp switching regulator. The LH1605 provides high current output while maintaining a small physical configuration. Open frame type to allow mounting into restricted areas.

JE224 Kit \$79.95

JE224A Assembled and Tested \$99.95



— ALL ABOVE KITS COME COMPLETE WITH ASSEMBLY INSTRUCTIONS —

EDUCATIONAL ELECTRONIC ROBOT KITS

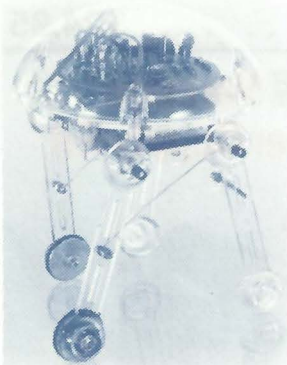
NEW!

OWI

Clever, inexpensive robot kits!

The **MOVIT** line is a series of computerized (and logic-controlled) battery robot kits that can teach the basic principles of robotic sensing and locomotion. Each of the kits features pre-assembled pc boards, hardware and mechanical-drive systems that can be handled by anyone. Only basic hand tools are required for assembly. These fascinating robots allow you to experience and learn any one of the following features: sound sensor, remote control, infra-red sensor, wired control and/or programmable memory. OWI's **MOVIT** line has provided the future with an innovative electronic educational kit. They are affordable robots that can entertain as well as educate. Now meet the family!

See insert mailer for the famous **PEPPY Sound/Touch Sensor Robot!**



MOVIT MEDUSA

MOVIT MEDUSA is a walking robot with an electronic brain. Registering your command, this robot starts to hobble on its 4 legs and stops automatically after a preset time.

- Movement: 2 legs on each side by crank shaft • Control: Sound sensor including condenser microphone/transistor • Power source: 2 ea. 1.5V batteries N size (E90,MN9100) (not included) • Color: clear

MV-939 Sound Sensor (4.75"Lx4.75"Wx2.75"H) . . . \$29.95

LIMITED QUANTITIES!

SOUND SKIPPER



Order the **SOUND SKIPPER** to "walk" with a loud voice or clap your hands. This robot starts walking and stops after a while — automatically.

- Movement: 2 alternatively moving legs driven by crank motion
- Control: Sound sensor including condenser microphone/transistor
- Power source: 2 ea. 1.5V batteries N size E90, MN9100 (not incl.)
- Color: yellow

MV-917 Sound Sensor (3"L x 3"W x 5"H) . . . \$24.95

LIMITED QUANTITIES!

MONKEY



Order your **MONKEY** to "move" with a loud voice or clap your hands. The robot starts romping along a rope and stops after a while by himself.

- Movement: 2 alternatively moving gripper arms by crank motion
- Control: Sound sensor including condenser microphone/transistor
- Power source: 2 ea. 1.5V batteries N size E90, MN9100 (not incl.)
- Color: yellow

MV-919 Sound Sensor (3"L x 3"W x 5"H) . . . \$24.95

PIPER-MOUSE



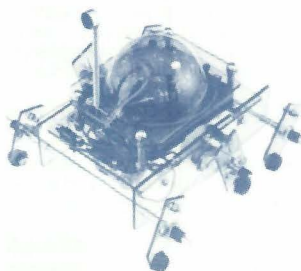
This is a **Supersonic-Robot** controlled by a supersonic sound sensor and an electronic circuit (one channel). Use the whistle attached to this kit and Piper Mouse will follow your commands immediately turning to the left, stop, turning to the right, stop, advance and stop.

- Movement: 3 wheels driven by 2 DC motors • Control: Supersonic sound sensor including condenser microphone & PC board • Power source: 2 ea. AA batteries & 1 ea. 9V battery (not incl.) • Color: blue

Due 11/1/84

MV-915 Sound Sensor (4.5"L x 4.75"W x 5"H) . . . \$44.95

TURN BACKER

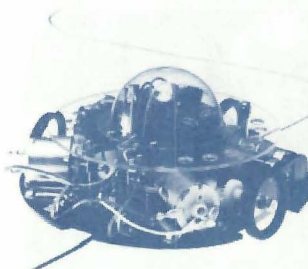


When this robot is about to hit a wall, just cry "Look Out!" The robot will immediately turn to the left.

- Movement: 3 legs on each side driven by crank motion • Control: Sound sensor incl. condenser microphone & PC board • Power source: 4 each AA batteries (not included) • Color: blue

MV-911 Sound Sensor (5"L x 5.5"W x 4.5"H) . . . \$39.95

LINE TRACER II

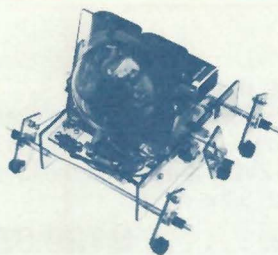


Guided by an infra-red light sensor this robot will automatically follow any black line drawn on white paper.

- Movement: 3 wheels driven by 2 DC motors • Control: Infra-red sensor including infra-red diode/photo diode/IC • Power source: 2 ea. AA batteries, 1 ea. 9V battery (not incl.) • Color: yellow
- How to play: Draw a black line on white paper board. Line width a minimum of 10 mm wide. Narrowest turning radius must be at least 15 cm.

MV-913 Infra-red Sensor (2.75"Radius x 2.5"H) . . . \$39.95

EDUCATIONAL ELECTRONIC ROBOT KITS



AVOIDER

An intelligent robot which knows how to avoid hitting walls. This robot emits an infra-red beam which detects an obstacle in front.

• Movement: 3 legs on each side by crank motion • Control: Infra-red sensor incl. infra-red diode/photo diode/IC • Power source: 4 ea. AA batteries & 1 ea. 9V battery (not incl.) • Color: blue

MV-912 Infra-red Sensor (5"Lx5.5"Wx4.5"H) . . \$44.95

MEMOCON CRAWLER

Build an interface from the crawler to your personal computer!

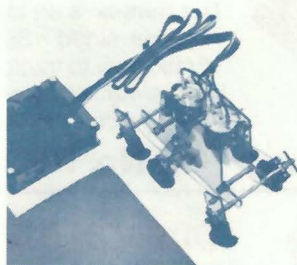


This robot is memory controlled through the keyboard included in this kit & runs as per the program you input using this keyboard. The keyboard has 5 different switches. The commands include: forward, to the right, to the left, pause, sound a buzzer and light up (LED). This robot employs a sequence function static RAM 256x4 bit memory.

• Movement: 3 wheels driven by 2 DC motors • Control: Memory/electronics circuit (through the keyboard) • Element: 4-bit static RAM • Modes: Right, left, forward, pause, buzzer, beam (LED) • 256 steps (no repeat steps) approx. 0.7-0.3 sec/1 step • Power source: 2 ea. AA batteries, 1 ea. 9V battery (not incl.) • Color: black

MV-918 Programmable Memory (2.75"Rad.x2.5"H) . \$74.95

MR. BOOTSMAN

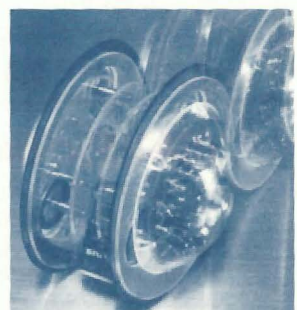


The MR. BOOTSMAN has 6 insect-like legs, 2-speed movement, and includes a control box. The unique MR. BOOTSMAN can walk or run forwards or backwards, left or right, and when the leg movement on one side is reversed and the other side continues its forward action the MR. BOOTSMAN can execute 360° turns. You can use this robot for thrilling games of football or pushing matches, and you can even program your own games.

• Power source: 2 each AA batteries (not included) • Color: blue

MV-931 Wired Control (5"Lx3.5"Wx4"H) \$32.95

CIRCULAR



The brand new CIRCULAR model has 2 large wheels which roll this super robot left and right, forward, or round and round. All the movements can be perfectly controlled by a hand-held remote control box. The CIRCULAR slips silently and smoothly along, making your friends stare in wonder. They must be asking themselves "How does it move?" It's a new robot from another age and can provide endless hours of amusement for all the children, and adults too!

• Power source (main body): 3 ea. AA batteries, 1 ea. 9V battery — (control box): 1 ea. 9V battery (not included) • Color: green

Remote Control (2.75" Radius x 5.75"H)

MV-935 . . \$69.95

FIBEROPTICS EDUCATIONAL KIT



ADVANCED FIBEROPTICS CORPORATION

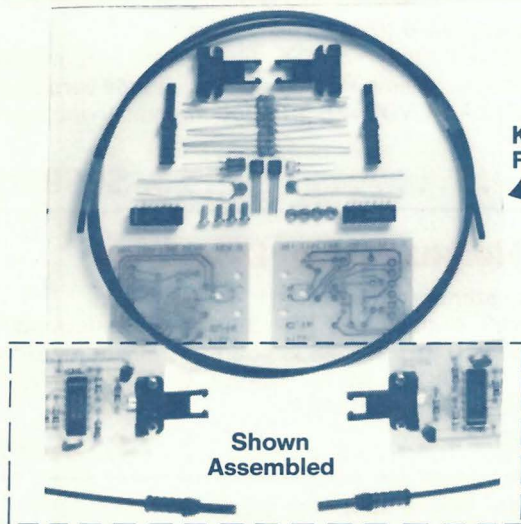
LOOKING AHEAD THROUGH...

FIBEROPTICS

The EDU-LINK Learning Kit

Kit Form

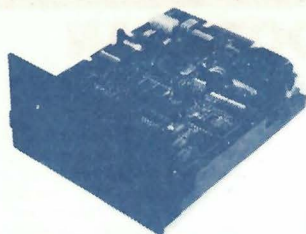
The EDU-LINK fiber optic system is a low cost, TTL compatible data transmission system designed specifically as an educational tool for students and engineers working in many different industries. This kit will easily demonstrate the principles of fiber optic system design. The EDU-LINK package includes a transmitter PCB, a receiver PCB, one meter of plastic optical fiber, and all the necessary electrical hardware. Complete step-by-step instructions, theory of operation, and tutorial information are included. The finished product can be used immediately for direct data transmission. A built-in oscillator on the transmitter PCB will allow transmission without an external CMOS and TTL input.



Shown Assembled

Part No. ELK-1. \$19.95

DISK DRIVES*



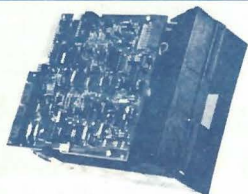
Size: 5.75"W x 7.8"D x 3.40"H

REMEX 5 1/4" Floppy Disk Drive

The Remex is an industry standard (IBM format) drive.

- Double-sided • Single/double density • 48 TPI • 500K bytes unformatted
- 5ms track to track • 80ms access time • The unit is a half-height (typical) drive mounted on a full-height bezel • Power: +12VDC @ 1.25A, +5VDC @ .41A (typical) • Documentation included • Weight: 3 lbs.

Part No. RFD480. . . . (300 available). \$129.95



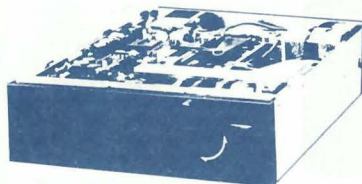
Size: 5.75"W x 8"D x 3.25"H

TANDON 5 1/4" Full Height Floppy Disk Drive

For IBM PC (Industry Standard)

- Double-sided • Single/double density • 48 TPI • 500K bytes unformatted
- 5ms track to track • 75ms access time • Power: +12VDC @ 0.9A, +5VDC @ 0.6A • Documentation included • Weight: 3.7 lbs.

Part No. TM100-2 \$159.95



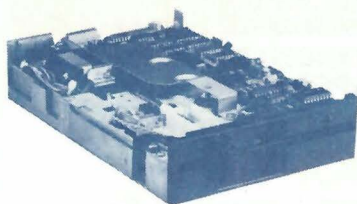
Size: 5.34"W x 8"D x 1.58"H

TEAC 5 1/4" Half-Height Floppy Disk Drive

For IBM PC (Industry Standard)

- Double-sided • Single/double density • 48 TPI • 500K bytes unformatted
- 6ms track to track • 93ms access time • Full compatibility with TEAC FD-50 Series • Protection against accidental erasure • Voltage sensing circuit prevents writes when powering up • Power: +12VDC @ 0.6A, +5VDC @ 0.65A • Documentation included • Weight: 3.3 lbs.

Part No. FD55B. \$149.95



Size: 5.75"W x 8.46"D x 1.62"H

SHUGART 5 1/4" Half-Height Floppy Disk Drive

The Shugart is an industry standard (IBM format) drive

- Double-sided • Single/double density • 48 TPI • 500K bytes unformatted
- 6ms track to track • 93ms access time • Enhanced half-height version of SA400 • Power: +12VDC @ 1.2A, +5VDC @ 0.9A • Documentation included • Weight: 3.3 lbs.

Part No. SA455. \$159.95



Size: 8.55"W x 14"D x 4.5"H

SIEMENS 8" Full Height Floppy Disk Drive

The Siemens is an industry standard drive.

- Single-sided • Single/double density • 48 TPI • 800K bytes unformatted
- 3-8ms track to track • Track 0 to track 76 is 456ms • Fully compatible with Shugart 801 • Power: 115VAC @ 60Hz, +24VDC @ 1.7A, +5VDC @ 1.2A • 96-page Manual included • Weight: 12 lbs.

Part No. FDD100-8. \$139.95

**All disk drives above do not include case, power supply or cables.*

All manuals purchased separately are \$5.00 each.

See page 65 for Disk Drive Cables and Enclosures — See pages 54 & 55 for Power Supplies

Power Cable Kits & Signal Cables for Disk Drives

5 1/4" DISK DRIVE POWER CABLE KIT

Includes:

- One 4-pin connector shell
- Four connector pins
- Four 1 1/2' lengths of 16 AWG wire

PCK-5.....\$2.95

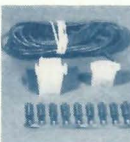


8" DISK DRIVE POWER CABLE KIT

Includes:

- One 3-pin connector shell
- One 6-pin connector shell
- Nine connector pins
- Nine 1' lengths of 16 AWG wire

PCK-8.....\$3.95



POWER SPLITTER



The PC-Y is a power splitter for disk drives. It splits a four line Molex male into two females for general applications (e.g. two disk drives to one power supply)

PC-Y.....\$12.95

SINGLE DRIVE CABLES



5 1/4" DRIVES USE 34-PIN ASSEMBLIES
8" DRIVES USE 50-PIN ASSEMBLIES

| Part No. | Drive | Style | 1-9 | 10+ |
|----------|--------|-------|---------|---------|
| S34-36-C | 5 1/4" | M | \$ 7.95 | \$ 7.25 |
| S34-60-C | 5 1/4" | N | 8.95 | 8.39 |
| S50-36-C | 8" | M | 10.95 | 9.95 |
| S50-60-C | 8" | N | 12.49 | 10.95 |

DUAL DRIVE CABLES



| Part No. | Drive | Style | 1-9 | 10+ |
|-------------|--------|-------|---------|---------|
| S34-36C-18C | 5 1/4" | O | \$12.59 | \$11.19 |
| S34-60C-24C | 5 1/4" | P | 14.29 | 12.69 |
| S50-36C-18C | 8" | O | 16.49 | 14.49 |
| S50-60C-24C | 8" | P | 18.95 | 16.95 |

NYLON CONNECTOR SETS

| Part No. | No. of Contacts | Price |
|-----------|-----------------|--------|
| W1619PRT | 1 | \$2.50 |
| W1545PRT | 2 | \$2.75 |
| W1396PRT | 3 | \$2.95 |
| W1490PRT | 4 | \$2.95 |
| W1653PRT | 5 | \$3.20 |
| W1261PRT | 6 | \$3.40 |
| W1292PRT | 8 | \$2.30 |
| W1360PRT | 9 | \$2.55 |
| W1375PRT | 12 | \$2.75 |
| W16251PRT | 15 | \$3.55 |
| W16252PRT | 24 | \$4.95 |
| W17236PRT | 36 | \$5.95 |

ECONO EXTRACTOR

| | | | |
|---------|---------|---|--------|
| WHT2023 | WHT2054 | — | \$4.95 |
|---------|---------|---|--------|

DELUXE EXTRACTOR

| | | | |
|---------|---------|---|--------|
| WHT2285 | WHT2038 | — | \$9.95 |
|---------|---------|---|--------|

HAND CRIMPER

| | | | |
|---------|---------|---|---------|
| WHT1919 | WHT1921 | — | \$12.95 |
|---------|---------|---|---------|

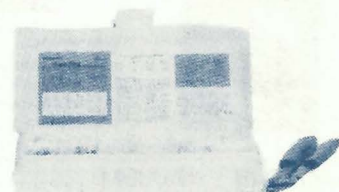


Supplementary Pin Terminal Package

10 Pieces Each Male & Female Per Package

| Part No. | Pin Dia. | Wire GA. | Size | Price |
|----------|----------|----------|------|--------|
| W118990 | .093" | 20-14 | | \$1.95 |
| W138180 | .093" | 26-16 | | \$1.95 |
| W143334 | .093" | 30-24 | | \$1.95 |
| W156160 | .062" | 26-18 | | \$1.95 |
| W185554 | .062" | 30-24 | | \$1.95 |

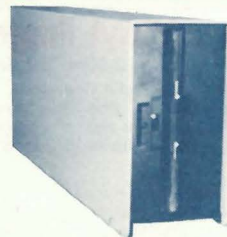
WALDOM CONNECTOR KITS



Each Waldom kit contains a specially selected series of polarized nylon housing connectors, a heavy duty crimping tool (WHT1919 or WHT1921) that strips wire, cuts wire and cuts bolts. Also included is a pin ejector tool that makes engineering changes a snap. Kit contains parts to assemble 45 connectors from 1 to 15 circuits.

| Part No. | Description | Price |
|----------|--------------------------------|---------|
| WM50K | Nylon Connector Kit for .093". | \$35.95 |
| WM72K | Nylon Connector Kit for .062". | \$34.95 |

5 1/4" AND 8" DISK DRIVE ENCLOSURES

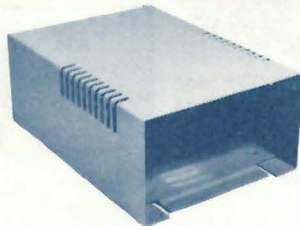


Dual 8" Thinline Enclosure

- Will accommodate one full-sized 8" drive or two 8" thinline drives
- Provides 97 watts of DC power: 5V @ 4A, -5V @ 800mA, 24V @ 3A
- Cooled by filtered fan

DTL-002SHU also includes AC and DC internal cables, grounded international cord set, fused AC and DC lines, and power switch. Size: 21" L x 4 3/4" W x 9 1/4" H • Weight: 19 lbs.

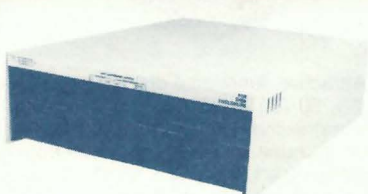
| Part No. | Price |
|-----------------|----------|
| DTL-002SHU..... | \$165.00 |



5 1/4" DISK DRIVE ENCLOSURE

The 5 1/4" Disk Drive Case houses 1 standard full height 5 1/4" floppy disk drive or 2 thinline drives. Finished to match an APPLE® computer. Sturdy metal construction. Complete with 4 mounting screws (some modification required). Size: 8 1/8" L x 6 1/8" W x 3-9/16" H.

| Part No. | Price |
|-------------------------------|--------------|
| DCC-5 1/4 (400 available).... | Only \$19.95 |



Dual 8" Drive Enclosure

- Will accommodate 2 full-sized drives or any combination of standard sized floppy and hard disk drives with the exception of Tandon thinlines.

Enclosure FDE-002SHU includes all the features of the DTL-002SHU enclosure (left) plus tilt-back access to drives and power supply. Rear panel accepts two 50-pin data connectors, and one 20-pin connector for hard disk control cable. Size: 22 1/4" L x 17 1/4" W x 6 1/8" H. Weight: 30 lbs.

| Part No. | Price |
|-----------------|----------|
| FDE-002SHU..... | \$295.95 |

DISKETTES AND ACCESSORIES

5 1/4" Diskettes

**Lifetime
Warranty!**

SSDD = Single Sided Double Density
SSQD = Single Sided Quad Density

DSDD = Double Sided Double Density
DSQD = Double Sided Quad Density

ULTRA MAGNETICS — 5 1/4" DISKETTES

| Part No. | Description | Boxed | PRICE |
|----------|--|-------|---------|
| UM51401 | 5 1/4" SSDD Soft Sector with Hub Ring and Envelope | 10 | \$24.95 |
| UM00096 | 5 1/4" SSDD Soft Sector with Hub Ring (Bulk) | 100 | 189.95 |
| UM52401 | 5 1/4" DSDD Soft Sector with Hub Ring and Envelope | 10 | 33.95 |
| UM00140 | 5 1/4" DSDD Soft Sector with Hub Ring (Bulk) | 100 | 269.95 |
| UM51801 | 5 1/4" SSQD Soft Sector with Envelope (96TPI) | 10 | 34.95 |
| UM00214 | 5 1/4" SSQD Soft Sector 96TPI (Bulk) | 100 | 289.95 |
| UM52801 | 5 1/4" DSQD Soft Sector with Envelope (96TPI) | 10 | 41.95 |
| UM00217 | 5 1/4" DSQD Soft Sector 96TPI (Bulk) | 100 | 369.95 |



DISKETTE ACCESSORIES

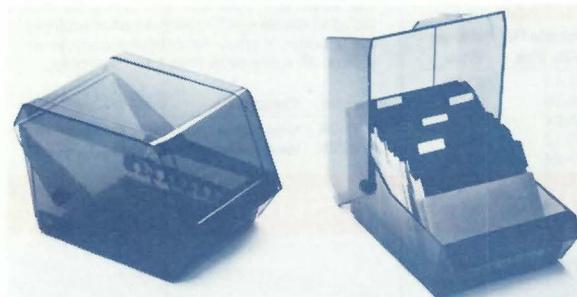
Clean Runner

The Clean Runner is the easiest method available to clean sensitive drive heads without causing damage to or misalignment of the heads. Clean Runner incorporates a controlling program that directs the drive head to a different cleaning area for each cleaning.



| Part No. | Description | Price |
|-----------|--------------------|---------|
| 1-7102-IB | 5 1/4" IBM. | \$26.95 |
| 1-7102-AP | 5 1/4" Apple. | \$26.49 |

Disk Minder



• Attractive, functional disk storage system • 36 (3", 3.25" and 3.5"), 50 (8") or 75 (5 1/4") disk storage capacity • Easy filing and retrieving • Protects disk from dust contamination • Molded from durable smoked plastic with front carrying handle • Size (DM36): 8 5/8"L x 5 1/2"W x 4 7/8"D • Size (DM50 & DM75): 7"W x 6 1/2"H x 9 1/4"D • Weight: 2 lbs.

| Part No. | Description | Price |
|----------|--|-------------|
| DM36 | Stores 36 (3", 3.25", 3.5") Diskettes. . . | \$19.95 ea. |
| DM75 | Stores 75 (5 1/4") Diskettes. | \$19.95 ea. |
| DM50 | Stores 50 (8") Diskettes. | \$29.95 ea. |

MINI-PAK

• Stores 10 (5 1/4") diskettes • Protects disk from dust contamination • Durable smoked plastic • Size: 6"L x 5 7/8"H x 1 7/8"D

| Part No. | Description | Price |
|----------|------------------------------------|-------------|
| MP-10 | Stores 10 (5 1/4") Diskettes. | \$2.95 each |

Recording Interchange Diagnostic

The RID is a precision tool set up in terms of software routines on a 5 1/4" flexible disk. The disk can be inserted in a drive for fast (less than 1 min.), comprehensive, accurate, pass-fail determination of seven critical drive factors that can affect disk interchangeability (disk speed, noise tolerance, write/read, track alignment, positioner backlash, clamping, & erase crosstalk.)



| Part No. | Description | Price |
|----------|--------------------------------|---------|
| 5S2-1 | IBM PC and XT. | \$39.95 |
| 5S1-2 | Apple II, II+ and IIe. | \$38.95 |
| 5S1-3 | Radio Shack III, IV & 4P. | \$37.95 |

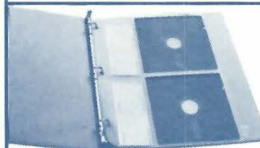
Diskette Envelopes Sleeves for Bulk-Purchased Diskettes

• Tear proof • Lint/contaminant free • Anti-static protect. • Wear resist.

| Part No. | Description | Price |
|------------|-----------------------------------|-----------------|
| MP5201 | 10 White 5 1/4" Envelopes | 10 for \$ 1.49 |
| MP5201-100 | 100 White 5 1/4" Envelopes . . . | 100 for \$10.95 |

Vinyl Pages For 3-Ring Binders

Protects disks from dirt, scratches, dust, spills, and other contaminants. Reduces the risk of getting dirt near your disk drive head. Size: 8 1/2" x 11"



| Part No. | Description | Price |
|----------|------------------------------------|---------------|
| PC001 | 2 Pocket 5 1/4" Vinyl Page | 10 for \$7.95 |
| PC001-2 | 4 Pocket 5 1/4" Vinyl Page | 10 for \$8.95 |

Mail Pak™

- Holds up to 3 diskettes
- Ideal for mailing and retail packaging
- Dust proof and durable
- Transparent sleeve allows easy identification



| Part No. | Description | Price |
|----------|------------------------------------|-------------|
| MP-05 | Holds 3 ea. 5 1/4" Diskettes. | \$2.49 each |

COMPUTER SWITCHER

telmac T-SWITCH



RS-232 and Centronics Computer Switchers

The 200 Series is a low cost method for two terminals to share the same remote devices such as a printer, modem, plotter or computer port. It also allows a terminal to selectively communicate with two different remote devices using its same port. The 200 Series is a useful device for both industrial and home computer applications. • Rear-mounted female connectors • Size (TS-208 and TS-225): 7.5"L x 5.5"W x 1.5"H • Size (TP-223): 9.5"L x 6"W x 1.5"H • Weight (all models): 1 lb.

FEATURES:

- **Push Button Control**
- **Rugged Metal Case**
- **Color: Black**
- **Compact Size**
- **Easy Installation**

| Part No. | Lines Switched | No. of Positions | PRICE |
|----------|--|------------------|----------|
| TS-208 | 2 thru 8+20 (Pin 1 common) (RS-232) | 2 | \$ 74.95 |
| TS-225 | All 25 lines (RS-232) | 2 | \$ 89.95 |
| TP-223 | All pins except 15, 18 & 34 (Centronics) | 2 | \$114.95 |

RECOMMENDED CABLES

| Part No. | Description | PRICE |
|------------|---|---------|
| CDB25P-4-P | 4' long; 2 male DB25 connectors (TS-208/TS-225) | \$13.95 |
| CDB25P-4-S | 4' long; 1 male & 1 female DB25 connector (TS-208/TS-225) | \$13.29 |
| CEN36M-5-M | 5' long; 2 male Centronics connectors (TP-223) | \$19.95 |
| CEN36M-5-F | 5' long; 1 male & 1 female Centronics connector (TP-223) | \$22.95 |

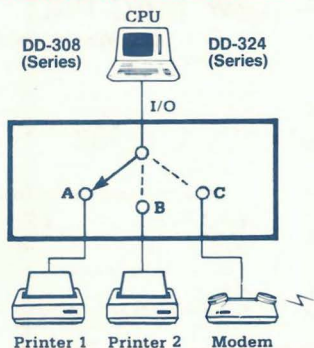
GLOBAL-DATA

A DIVISION OF GLOBAL SPECIALTIES CORPORATION

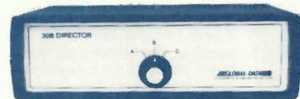
DIRECTOR Multiport Centronics and RS-232 Dataswitches

Connect three peripherals to one computer, or three computers to one peripheral with the RS-232 DIRECTOR Dataswitches DD-308(L) and DD-324(L). Connect two peripherals to one computer, or two computers to one peripheral with Centronics DIRECTOR Dataswitch DD-236. The 308 DIRECTOR switches the eight most commonly used lines, pins 2, 3, 4, 5, 6, 7, 8, and 20. The 308L DIRECTOR has the added convenience of 6 LEDs to monitor active signals on lines 2, 3, 4, 5, 6, and 20. The 324 DIRECTOR switches all 24 lines (line #1 is protective ground and is always connected), and the 324L model also has six signal monitoring LEDs. The 236 DIRECTOR switches all 36 lines.

• Simple front panel rotary switch operation • Easy one-time installation via rear panel mounted RS-232 female connectors [DD-308(L) and DD-324(L)] and Centronics female connectors (DD-236) • Unlimited expansion available by building multi-unit system • Rugged black plastic case • Size: 10"L x 7"W x 3"H • Weight: 2.2 lbs.



REAR VIEW



308 DIRECTOR



324L DIRECTOR

| Part No. | Lines Switched | No. of Positions | LED Monitors | PRICE |
|----------|----------------------------|------------------|------------------------|----------|
| DD-308 | 2 thru 8+20 (Pin 1 common) | 3 | None | \$119.95 |
| DD-308L | 2 thru 8+20 (Pin 1 common) | 3 | 6 lines (2,3,4,5,6,20) | \$134.95 |
| DD-324 | 2 thru 25 (Pin 1 common) | 3 | None | \$154.95 |
| DD-324L | 2 thru 25 (Pin 1 common) | 3 | 6 lines (2,3,4,5,6,20) | \$169.95 |
| DD-236 | All 36 lines (Centronics) | 2 | None | \$219.95 |

RECOMMENDED CABLES

| Part No. | Description | PRICE |
|------------|---|---------|
| CDB25P-4-P | 4' long; 2 male DB25 connectors - DD-308(L)/DD-324(L) | \$13.95 |
| CDB25P-4-S | 4' long; 1 male & 1 female DB25 connector - DD-308(L)/DD-324(L) | \$13.29 |
| CEN36M-5-M | 5' long; 2 male Centronics connectors (DD-236) | \$19.95 |
| CEN36M-5-F | 5' long; 1 male & 1 female Centronics connector (DD-236) | \$22.95 |

APPLE® COMPUTER ACCESSORIES



Cooling Fan for APPLE II, II+ and IIe*

• Line surge protection

• Snaps on the side of Apple II, II+ and IIe enclosures • Eliminates overheating problems thereby boosting reliability and operation life of computer • Switch on front serves as power switch for fan, computer, and extra outlet • Size: 7" L x 2 3/8" W x 4 1/4" H • Weight: 2 lbs.

APF-1. \$39.95



APPLE* Compatible 5 1/4" Disk Drive and Controller Card

• Uses Shugart SA390 mechanics • 143K formatted storage • Color matches Apple Computer • Works with Apple Controller or other Apple-compatible controllers (ACC-1) • Complete with connector — just plug into your disk controller card • 35 tracks • Size: 6" L x 3 1/2" W x 8-9 1/16" D • Weight: 4 1/4 lbs.

ADD-514 (Disk Drive). . . . \$169.95

ACC-1 (Controller Card). . . . 49.95



APPLE* Compatible 5 1/4" Half-Height Disk Drive

• Uses Chicon Pinch-type mechanics • 163K unformatted • 35 tracks • Super quiet • Works with Apple Controllers or other compatibles (ACC-1) • Complete with connector — just plug into your controller • Size: 5 3/4" W x 1 1/8" H x 8" D • Weight: 4 lbs.

ADD-12 (Disk Drive). \$179.95

ACC-1 (Controller Card). . . . 49.95

12" Monochrome Green Monitor for APPLE II, II+, IIe and IIc*



Also compatible with other computer systems.

FEATURES:

- Anti-reflective, 75 sq. in. viewing screen
- High resolution display
- 80 character x 24 line display format
- LED power indicator
- Attractive, computer-matched styling
- Brightness control
- Easy access controls in back of unit
- Complete with tilt/swivel monitor stand

SPECIFICATIONS:

- Input signal: composite video
- Input impedance: 75 Ohm — 1000 x 800 resolution
- 12" 90 degree deflection green
- 110/220V (switchable) — 35W
- Weight: 20 lbs.

MON-12G. \$99.95

VOICE SYNTHESIZER FOR APPLE AND COMMODORE

See Commodore Computer Accessories on page 69 for complete description.

JE520AP For Apple. \$149.95

JE520CM for Commodore. \$114.95

ProModem 1200A Apple* Card Pack

Complete with on-board software & all necessary hardware!

New 300/1200 Baud 212A Telephone Modem for your APPLE II, II+ and IIe

Just plug the ProModem Card Pack into any expansion slot and connect the telephone cord. Features: • Auto-Answer, Auto Dial, Programmable Intelligent Dialing, built-in Speaker with Volume Control, Help Commands, Extensive Diagnostics & more! Fully Hayes-compatible.

PM1200A. \$369.95



Switching Power Supply for APPLE II, II+ and IIe*

• Can drive four floppy disk drives and up to eight expansion cards • Short-circuit and overload protection • Fits inside Apple computer • Fully regulated +5V @ 5A, +12V @ 1.5A, -5V @ .5A, -12V @ .5A • Apple-type plug in power cord included • Size: 9 1/8" L x 3 1/2" W x 2 1/4" H • Weight: 2 lbs.

KHP4007. \$59.95

Numeric/Auxiliary Keypad for APPLE IIe*



The JE614 offers the flexibility of a 10-key pad and the convenience of 23 directly accessible functions. Screen manipulating functions make word processing a snap, and cursor controls make the keypad ideal for VisiCalc** users. • Durable metal enclosure • Color-coordinated with Apple IIe • Special functions include: Home, Clear, Clear to End of Screen, Scroll-Up, Scroll-Down, Tab, Delete, Left, Right, Up & Down • Each key has auto-repeat • Size: 5 1/2" L x 4-3/16" W x 1 1/4" to 2 1/2" D • Accommodates Apple IIe only.

JE614. \$59.95

NEW! MAC PAC For Your Macintosh*

The MAC PAC is a complete low-cost way to get your Macintosh Computer transmitting and receiving data. MAC PAC provides everything you need for Macintosh communications including:

- ProModem 1200
- Cable
- Communications Software

MAC PAC. \$399.95

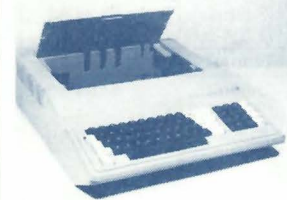
PM-MC. \$29.95

(Cable for Macintosh to PM1200 Modem)

PM-CC. \$29.95

(Cable for Apple IIc to PM1200 Modem)

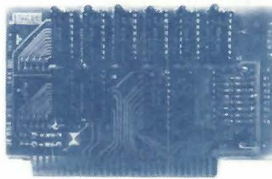
APPLE Keyboard and Case for Apple II and II+*



- KEYBOARD (KB-A68):**
- 68 Keys • 15-Key Keypad
 - Direct connection with 16-pin ribbon connector
 - Special functions on number keys, including cursor controls, color demo, and one-touch dial catalog
 - Metal baseplate for durability (with 6 mounting holes)
 - Color (keys): white/grey
 - Size: 14 1/2" L x 5 1/2" W x 1 1/2" H
- CASE (EAEC-1):**
- Accommodates KB-A68
 - Pop-up lid for easy access
 - Fits power supply & motherboard too
 - Size: 15 1/2" W x 18" D x 4 1/4" H

| Part No. | Description | Price |
|----------|---|----------|
| KB-EA1 | Keyboard and Case (pictured above). | \$134.95 |
| KB-A68 | 68-Key Apple Keyboard only. | \$ 79.95 |
| EAEC-1 | Expanded Apple Enclosure Case only. | \$ 59.95 |

80-Column Plus 64K RAM For Your APPLE IIe*



Now you can double the memory capacity and get an 80-column display format for your APPLE IIe* computer at an affordable price. Just plug the JE864 card into your APPLE computer and expand your display to 80 characters per line. Perfect for word processing. The JE864 also features 64K bytes of additional memory to allow programming not possible with standard APPLE IIe computers. Complete documentation included.

Board: • High density board design squeezes 64K bytes of RAM onto a 2 1/2" x 4 1/4" board • Fully tested to assure proper operation.

Uses: • Word processing — displays 1000 more characters per screen • Extra memory allows running of extremely large programs • Ultra High Resolution Graphics capability

JE864. \$99.95

*APPLE, APPLE II, II+, IIe, IIc and Macintosh are registered trademarks of Apple Computers.

**VisiCalc is a registered trademark of Visi Corp., Inc.

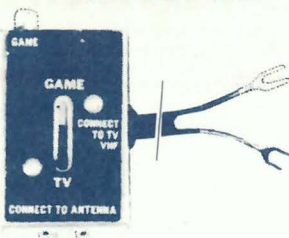
COMMODORE COMPUTER ACCESSORIES

GAME PADDLES



JSP Atari Paddles. \$2.95
CSP Commodore
Paddles. \$4.95
(Atari Paddles modified for
VIC20 & C-64)

TV Game Switch



100% functional — cosmetically blemished. Size: 2 3/4" L x 1-13/16" W x 13/16" H.

TGS-1. \$1.49 each
or 2 for \$1.95

JE520 Series

VOICE SYNTHESIZER FOR APPLE AND COMMODORE

Add speech capability to your Apple II, II+, IIe*, Commodore 64 or VIC-20 computer with JAMECO's JE520 Series Voice Synthesizer. Speech — the most effective means of communication available to man — is now immediately available for your computer.

Applications

- Education • Entertainment • Instrumentation
- Games • Telecommunications • Handicap Aids

JE520 Features

- More than 250 basic words, prefixes, suffixes, which allow the formation of well over 500 total words.
- Allows music, graphics and speech simultaneously.
- Programs in BASIC and/or assembler.
- Very understandable and realistic male voice.
- Built-in amplifier, speaker, volume control and audio jack
- Plug-in user-ready with complete documentation & sample software.

The JE520 will plug right into your computer and be talking in minutes. It produces a very clear, natural male voice. The outstanding speech quality is produced using National Semiconductor's Digitalizer™ speech processor IC with 4 JAMECO custom memory chips.



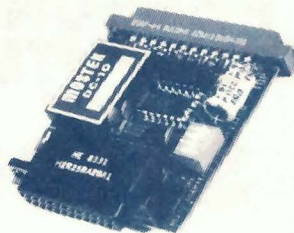
JE520CM

JE520AP

Case Size:
7 1/4" L x 3 3/4" W x 1 3/4" H

JE520CM For Commodore. \$114.95
JE520AP For Apple. \$149.95

RS232 Adapter for VIC-20 and Commodore 64



The JE232CM allows connection of standard serial RS232 printers, modems, etc. to your VIC20 and C-64. A 4-pole switch allows the inversion of the four control lines. Complete installation and operation instructions included.

- Plugs into User Port • Provides standard RS232 signal levels • Uses 6 signals (Transmit, Receive, Clear to Send, Request to Send, Data Terminal Ready, Data Set Ready).

JE232CM. \$39.95
(For VIC-20 and C-64)

SURGE PROTECTOR & BACK-UP POWER SOURCES



INDUSTRIES

DATASHIELD® SURGE PROTECTOR

Protect your electronic equipment and data from most common AC power line problems. Eliminates voltage spikes and EMI-RFI noise before it can damage your equipment or cause data loss.

- 6 month warranty • 6 sockets • 6 foot power cord • Normal line voltage indicator light • Brown-out/black-out reset switch • Brown-out notification (audible alarm) • Clamping level: 200 volts peak ± 5% • Clamping response: 0.1 nanosecond • Noise attenuation: -20dB to -100dB with frequency range: 100kHz to 300MHz • Power dissipation (100 microseconds): 1,000,000 Watts • Low voltage notification: 100V ± 2% • Applied line voltage: 120V RMS • Circuit overload protection: 10A replaceable fuse • Weight: 2 lbs. • Size: 3.9" W x 1.9" H x 6" L

Model 100. \$69.95

Protect Yourself . . . DATASHIELD® BACK-UP POWER SOURCES

The DataShield Back-Up Power Supply will provide up to 30 minutes (depending on your computer wattage) of continuous 120VAC 60Hz power to your computer system (load dependent) when you have a black-out or voltage sag. In addition it also provides surge protection. Damage can result from such events as lightning, heavy equipment start-ups, or operation of home or office electrical appliances.

- IDEAL FOR IBM PC, APPLE, TRS-80, COMMODORE and many other computer systems • Audible alarm • Surge and noise protection • Rechargeable long-life (4 years) battery • Two AC power sockets • 6 month warranty • Back-up time (minimum 50% load): 20 minutes — (minimum 100% load): 6 minutes — Load dependent • Output rating: 200 watts • Input: 120VAC 60Hz • Transfer time (typical): 4 milliseconds (maximum): 10 milliseconds • Recharge time: 10-12 hours • Clamping spike voltage: 200V peak ± 5% • Clamping response time: 1ns • Mode noise protection (transverse and common mode) — Attenuation: -20dB to -100dB with frequency range: 100kHz to 300MHz • Power dissipation (100 microseconds): 1,000,000 Watts • Energy dissipation: 100 joules • Weight: 24 lbs. • Size: 7 1/4" W x 4 3/4" H x 11" L

PC200 (Model 200). \$299.95

Back-Up Power Source designed for most hard disk type systems and color monitors

- Output rating: 300 Watts • Typical transfer time: 1 millisecond • Weight: 37.5 lbs. • Size: 7 7/8" W x 10 3/8" H x 13 1/2" L
- All other specs are equivalent to the PC200 (Model 200) above.

XT300. \$399.95



IBM PERSONAL COMPUTERS AND ACCESSORIES

**IBM
PERSONAL
COMPUTERS
FROM
\$1195**

**Original IBM
equipment with
full IBM warranty!**



Monitor
IBM Monochrome-Green
IBM-MGM. . . . \$259.95

PC
256K, 2-360K Drives & Keyboard
IBM256K2 ... \$2149.95

Complete Package As Shown
Plus: IBM DOS 2.1 (Software) and
IBM-MC (Monochrome Card)
PC256K-SPEC. \$2649.95

PART NO.

IBM PC's

PRICE

| | | |
|--|---|-----------|
| IBM64K0 | System Unit complete with 64K — No Drives. | \$1195.00 |
| IBM256K2 | System Unit complete with 256K and 2-360K Drives. | \$2149.95 |
| IBMPC-XT | PCXT System 256K with 8 Slots and Async Card. | \$3799.95 |
| IBM DOS 2.1 | Disk Operating System Software. | \$59.95 |
| — All above IBM PC's need DOS 2.1 Software for operation — | | |

MONITORS

| | | |
|------------|--|----------|
| Amdek 310A | Amber Monitor. | \$199.00 |
| IBM-MGM | IBM Monochrome-Green-Monitor. | \$259.95 |
| PG-RGB | Princeton Graphics Full-Color RGB Monitor. | \$549.95 |
| IBM-RGB | IBM Full-Color RGB Monitor. | \$599.95 |

COLOR/GRAPHICS CARDS

| | | |
|---------|---|----------|
| IBM-CC | IBM Color Card - operates IBM-RGB and PG-RGB, above (no Printer Port). | \$229.95 |
| IBM-MC | IBM Monochrome Card-operates IBM-MGM & Amdek 310A, above (plus Printer Port). | \$224.95 |
| PEC-DC | Peacock Full-Color Display Card-operates PG-RGB & IBM-RGB, above (plus Printer Port) | \$259.95 |
| HERC-GC | Hercules Graphics Card-operates IBM-MGM & Amdek 310A, above. | \$399.95 |
| | Plus a Printer Port for Full Graphics Capability (e.g. Lotus 1-2-3) | |

EXPANSION BOARDS AND MEMORY

| | | |
|--------|--|----------|
| AST64K | Six Pak Plus 64K upgradeable to 384K, with Clock Calendar, Serial & Parallel Ports. | \$309.95 |
| IBM64K | Add an additional 64K, 128K, 192K or 256K. | \$43.95 |
| | The IBM64K Kit will increase memory in 64K byte increments. The kit is simple to install — just insert the nine 64K RAM chips in the provided sockets and set the two groups of switches. Directions are included. | |

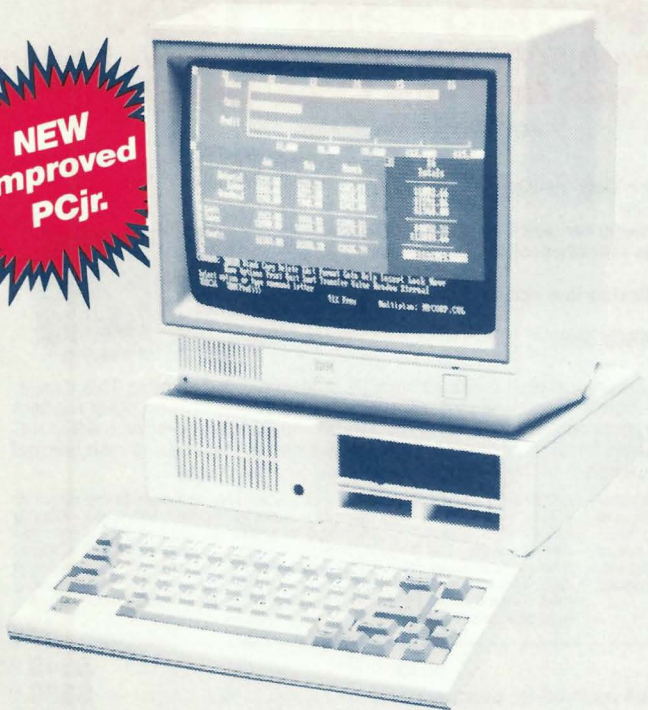
MODEMS

| | | |
|----------|--|----------|
| PM1200 | Prometheus RS-232 Stand Alone 1200 Baud Unit. | \$349.95 |
| PM1200B | Prometheus 1200 Baud Internal Unit (For IBM PC's and compatibles). | \$269.95 |
| PM1200BS | Prometheus 1200 Baud Internal Unit with ProCom Software (For IBM PC's and compatibles) | \$319.95 |
| HAY1200B | Hayes 1200B Internal Modem with Smartcom II. | \$449.95 |

DISK DRIVES

| | | |
|---------|--|----------|
| TM100-2 | Tandon 5¼" Double-Sided, Full-Height Disk Drive. | \$159.95 |
| FD55B | Teac 5¼" Double-Sided, Half-Height Disk Drive. | \$149.95 |
| FHD-10 | Franklin 10MB Hard Disk. | \$949.95 |
| IBM-DDA | Diskette Drive Adapter (Controller Card). | \$114.95 |

IBM PCjr HOME SYSTEM



IBM has significantly improved the IBM PCjr, its most complete home system. Now PCjr can run Lotus 1-2-3™ and more than 2000 other programs. Includes: 128K CPU • 360K disk drive • Improved typewriter-style keyboard • Dual cartridge slots...and more!

| Part No. | Description | Price |
|-------------------|--|-----------------|
| *IBM PCjr | Enhanced Model complete with 128K, 360K drive and 2 cartridge slots. . . . | \$949.95 |
| *IBMDOS2.1 | Disk Operating System Software. . . . | \$ 59.95 |
| IBM-JCM | PCjr. Color Monitor. | \$399.95 |
| IBM-JAC | PCjr. Adapter Cable-RGB Color. (Needed for Color Monitor operation) | \$ 19.95 |
| *IBM-TVC | PCjr. Connector for TV. | \$ 29.95 |
| *IBM-CPR | PCjr. Compact Printer. | \$169.95 |
| *IBM-CPC | Compact Printer Adapter Cable. (Needed for Printer operation) | \$ 39.95 |

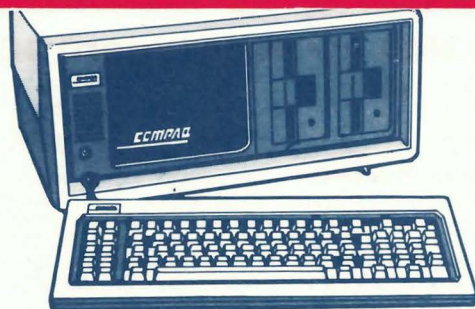
IBM PCjr Package SPECIAL!

***Includes: IBM PCjr System (128K-360K Drive), IBM DOS2.1 (Software), IBM-TVC (Connector), IBM-CPR (Printer) & IBM-CPC (Printer Cable).**
Note: IBM-JCM (Monitor) not included.

Part No. PCjr-Spec... **\$1195.00**

THE COMPAQ PORTABLE

**FULL
COMPAQ
WARRANTY**



- **256K RAM**
- **Dual floppy disks**
- **IBM compatible**

SPECIFICATIONS: • CPU: Intel 8088 • I/O Ports: Centronics parallel • Character Display: 80 columns x 25 lines; upper and lower case; inverse or flashing • Video output: RGB color output, composite video color output, RF modulator output for standard television receiver • Keyboard: Detachable, 83-key keyboard identical in layout to the IBM keyboard; 10-key numeric-cursor control keypad and 10 function keys • Operating system: MS-DOS • Special features: Three IBM PC-compatible expansion slots; built-in 9-inch green monitor; portability; monochrome and color graphics integrated into a single graphics board • Wt.28 lbs.

Part No. CPAQ-1 Complete with 256K RAM, 2 drives & built-in monitor. **\$2295.00**

COMPAQ ACCESSORIES

| | | |
|---------------|---|-----------------|
| AST64K | Six Pak Plus 64K upgradeable to 384K with Clock Calendar, Serial and Parallel Ports | \$309.95 |
| IBM64K | Add an additional 64K, 128K, 192K or 256K. The IBM64K Kit will increase memory in 64K byte increments. The kit is simple to install — just insert the nine 64K RAM chips in the provided sockets and set the two groups of switches. Directions are included. | \$43.95 |

MODEMS

| | | |
|-----------------|---|-----------------|
| PM1200B | Prometheus 1200 Baud Internal Unit (for IBM PC's and compatibles) | \$269.95 |
| PM1200BS | Prometheus 1200 Baud Internal Unit with ProCom Software (for IBM PC's and compatibles). | \$319.95 |
| HAY1200B | Hayes 1200B Internal Modem with Smartcom II. | \$449.95 |

Standard features include:

- Completely unattended operation—with or without computer
- Auto-Answer and Auto-Dial
- Programmable Intelligent Dialing—with easy access to PBX systems, MCI™, and Sprint™
- Includes various commands such as "Redial if busy" and "Wait for tone before continuing to dial"
- "Tilt-up" ergonomically designed front display panel for easy viewing
- Accessible time base for general computer program use
- Help Commands—convenient display of instructions menu for quick reference
- Diagnostics—sophisticated internal and remote modes identify problems
- Touch Tone™ and Pulse dialing
- Built-in speaker with external volume control for monitoring line operation
- Hayes command set compatible PLUS an additional extended command set...and, IT'S EXPANDABLE!


ProModem™ 1200
Intelligent 300/1200 Baud Telephone Modem with Real Time Clock/Calendar

 Alphanumeric Display (\$89.95)
Not included


ProModem™ 1200 incorporates LSI microprocessors with unique digital circuitry and a built-in clock/calendar. This design permits the standard unit to be expanded into a full telecommunications system with features available in no other modem in its price range. **ProModem™** is a Bell 212A and 103 asynchronous, 0 to 300 or 1200 baud telephone modem with RS-232C interface for host computer connection. It is FCC registered for direct connect. This stand-alone system has its own internal power supply and is capable of operating entirely independent of the host computer. One-year warranty.

BASIC COMMAND SET: • Immediate answer • Transmitter carrier • Dial command—including simple dial, wait for second dial tone, and autodial • Local echo • Full or half duplex • Switch hook • Audio monitor • On-line • Pulse dialing • Quiet mode • Reverse originate/answer • Set commands — select operating parameters such as number of rings to answer, dialing speed, etc. • Check operating parameters • Touch-tone™ dialing • English result codes

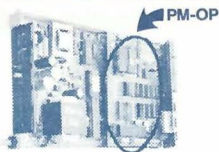
EXTENDED COMMAND SET: • Dial group reference code in the directory • Dial directory entry • Dial special number i.e. Sprint™, MCI™, etc. • Display input buffer contents • Display modem status • Delete directory entry • Add directory entry • List directory entries • Send log on sequence • Set or display time (three modes) • Search for reference name in directory • Start internal diagnostics • Start/stop/restart timer • Wait 00-99 seconds before executing next command • Store message to be automatically sent • Defer execution until specified time.

| PART NO. | DESCRIPTION | PRICE |
|-----------------|---|-----------------|
| PM1200 | RS-232 Stand Alone Unit. | \$349.95 |
| PM1200A | Apple II, II+ and IIe Internal Unit (See page 68 for description) | \$369.95 |
| PM1200B | IBM PC and Compatible Internal Unit. | \$269.95 |
| PM1200BS | IBM PC and Compatible Internal Unit (Includes ProCom Software). | \$319.95 |
| MAC-PAC | Macintosh Package (Includes PM1200, Cable & ProCom Software). | \$399.95 |

OPTIONS for ProModem 1200

ProCom Communication Software — designed to provide basic, simple, and easy to use communications capabilities. Note— Please specify for : PC DOS, MSDOS, or CP/M machines. ProCom for the Apple II, II+, IIe and IIc is available in DOS 3.3, Pro-DOS and CP/M.

PMCOM- (You must specify Operating System) **\$79.95**

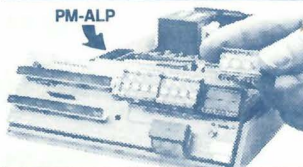


Options Processor — Includes additional memory, 2K CMOS memory (expandable to 64K), and battery backup. These additional features can be employed independently or in combination to perform sophisticated telecommunications functions. They include: DATA, OPTIONS STORE, and TIME-BASE CONTINUITY • BUSINESS/PERSONAL TELEPHONE DIRECTORY • AUTOMATIC RECEIPT/TRANSFER BUFFER • MEMORY EXPANSION

PM-OP Options Processor. **\$79.95**

Options Processor Memory — Options Processor required before memory can be installed.

| | | |
|----------------|---------------------|----------------|
| PMO-16K | 16K Memory. | \$10.95 |
| PMO-32K | 32K Memory. | \$20.95 |
| PMO-64K | 64K Memory. | \$39.95 |



Alphanumeric Display — Options Processor required before display can be installed. • 12 easy to install alphanumeric characters. For displaying a variety of messages without use of the host computer. The display can show operating status of modem, diagnostic messages, phone numbers, and real time clock data, to name a few. In the Auto-Answer mode, "MESSAGE 152" would indicate that a message had been received and stored at 1:52 A.M.

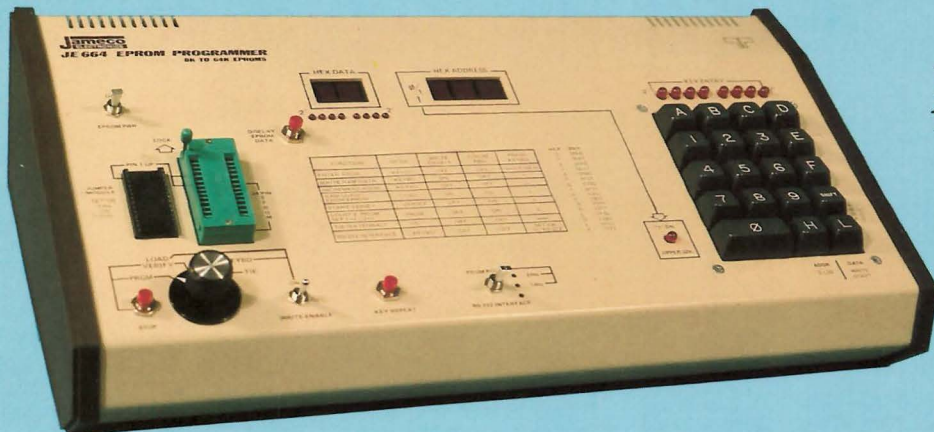
PM-ALP Alphanumeric Display. **\$79.95**

| | | |
|--------------|------------------------------------|----------------|
| PM-CC | Apple IIc to PM1200 Cable. | \$29.95 |
| PM-MC | Macintosh to PM1200 Cable. | \$29.95 |

JE664 EPROM PROGRAMMER

8K TO 64K EPROMS — 24 AND 28 PIN PACKAGES

COMPLETELY SELF-CONTAINED — REQUIRES NO ADDITIONAL SYSTEMS FOR OPERATION



- Programs and validates EPROMs • Checks for properly erased EPROMs • Emulates PROMs or EPROMs
- RS232C Computer Interface for editing and program loading • Loads data into RAM by keyboard • Changes data in RAM by keyboard • Loads RAM from an EPROM • Compares EPROMs for content differences • Copies EPROMs • Power Input: 115VAC, 60Hz, less than 10W power consumption • Enclosure: Color-coordinated, light tan panels with molded end pieces in mocha brown • Size: 15-5/8" L x 8 3/4" D x 3 1/2" H • Weight: 5 3/4 lbs.

The JE664 EPROM Programmer emulates and programs various 8-Bit Word EPROMs from 8K to 64K-Bit memory capacity. Data can be entered into the JE664's internal 8K x 8-Bit RAM in three ways: (1) from a ROM or EPROM; (2) from an external computer via the optional JE665 RS232C BUS; (3) from its panel keyboard. The JE664's RAMs may be accessed for emulation purposes from the panel's test socket to an external microprocessor. In programming and emulation, the JE664 allows for examination, change and validation of program content. The JE664's RAMs can be programmed quickly to all "1"s (or any value), allowing unused addresses in the EPROM to be programmed later without necessity of "UV" erasing. The JE664 displays DATA and ADDRESS in convenient hexadecimal (alphanumeric) format. A "DISPLAY EPROM DATA" button changes the DATA readout from RAM word to EPROM word and is displayed in both hexadecimal and binary code. The front panel features a convenient operating guide. The JE664 Programmer includes one JM16A Jumper Module (as listed below).

JE664-A EPROM Programmer — Assembled & Tested (Includes JM16A Module) \$995.00

JE665 — RS232C INTERFACE OPTION — The JE665 RS232C Interface Option implements computer access to the JE664's RAM. This allows the computer to manipulate, store and transfer EPROM data to and from the JE664. A sample program listing is supplied in MBASIC for CP/M computers. Documentation is provided to adapt the software to other computers with an RS232 port. 9600 Baud, 8-bit word, odd parity and 2 stop bits.

JE664-ARS EPROM Programmer with JE665 Option \$1195.00

Assembled and Tested (Includes JM16A Module)

EPROM JUMPER MODULES — The JE664's JUMPER MODULE (Personality Module) is a plug-in Module that pre-sets the JE664 for the proper programming pulses to the EPROM and configures the EPROM socket connections for that particular EPROM.

| JE664 EPROM JUMPER MODULE NO. | EPROM | Programming Voltage | EPROM MANUFACTURER | PRICE |
|-------------------------------|----------------------|---------------------|--|---------|
| JM08A | 2708 | 25V | AMD, Motorola, National, Intel, TI | \$14.95 |
| JM16A | 2716, TMS2516(TI) | 25V | Intel, Motorola, National, NEC, TI, AMD, Hitachi, Mostek ... | \$14.95 |
| JM16B | TMS2716 (3 Voltages) | -5V, +5V, +12V | Motorola, TI | \$14.95 |
| JM32A | TMS2532 | 25V | Motorola, TI, Hitachi, OKI | \$14.95 |
| JM32B | 2732 | 25V | AMD, Fujitsu, NEC, Hitachi, Intel, Mitsubishi, National | \$14.95 |
| JM32C | 2732A | 21V | Fujitsu, Intel | \$14.95 |
| JM64A | MCM68764, MCM68L764 | 21V | Motorola | \$14.95 |
| JM64B | 2764 | 21V | Intel, Fairchild, OKI | \$14.95 |
| JM64C | TMS2564 | 25V | TI | \$14.95 |

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